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Monthly Cyclopedia and Medical Bulletin

(CONSOLIDATED)

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CONTENTS

DEPARTMENT ON THE INTERNAL SECRETIONS.

ORIGINAL ARTICLES AND SUMMARIES OF SELECTED ARTICLES.

New Internal Secretions and a New Function of the Blood-vessels. By R. Lépine ... 641
The Medical Management of Exophthalmic Goiter. By Robert Abrahams ... 644
Familial Obesity with Disturbance of the Ductless Glands. By Dr. Laignel-Lavastine and Dr. Pinulesco ... 647
Thymus and Thyroid. By A. P. Dustin ... 650
Absorption of Epinephrin from the Nasal Submucosa. By J. D. Pilcher ... 652
The Relation of Hyperthyroidism to the Nervous System. By Albert C. Buckley ... 653
Glycosuria in Diseases of the Pituitary Gland. Paul Sainton and Louis Rol ... 656

ABSTRACTS FROM CURRENT LITERATURE ON THE INTERNAL SECRETIONS.

Diabetes Insipidus with Tuberculosis of the Pituitary Gland. L. Borelli ... 657
A Revision of Hypotheses Regarding Endemic Goiter. Editorial "Journal of the American Medical Association" ... 658
Progress in the Surgical Treatment of Exophthalmic Goiter. Klose ... 659
Insanity and Amenorrhea. J. W. Dunbar Hooper ... 660
Protective Action of the Adrenal Glands. W. B. Cannon ... 660
Experiments on the Pulmonary Circulation, Including the Action of Epinephrin. H. Führer and E. H. Starling ... 661
Thyroid Insufficiency, Nervous Conditions, and Spastic Constipation in Women. Schrt. 661
Fatal Illness in Infants and Children. McNeal ... 662
Maligant Tumors of the Thyroid. Xenia Wissmer-Kowarsky ... 662
Thyroid Treatment of Uterine Hemorrhage. E. Schrt ... 662
Observations on the Effects of Epinephrin. Malcolm Donaldson ... 663

(*Continued on page 5.*)

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NEWS AND THERAPEUTIC HINTS.

Irritable Cough.

A. P. Luff has found the following a useful mixture for the relief of irritable cough, and especially of post-influenzal cough:—

℞ Morphine hydrochloride,
Heroin hydrochloride, of each, gr. ¼.
Apomorphine hydrochloride, gr. ⅛.
Dilute hydrochloric acid, ♏v.
Syrup of wild cherry, f℥ss.
Chloroform water, enough to make f℥ss.

This dose should be taken every four hours. The medicine is very palatable and the presence of the hydrochloric acid effectually prevents the precipitation of any of the alkaloids. (Lancet.)

Nasal Catarrh—Chronic.

Dr. W. Wilson states that it is absolutely essential, in the treatment of chronic catarrh, that the general health be perfected. Many patients will recover upon adopting a wholesome, open-air mode of life, with abstention from tobacco, alcohol, etc. Calomel on alternate evenings, with magnesium sulphate in the morning, should be employed to relieve portal congestion.

Local treatment consists of simple lavage, which, however, must be persisted with. One teaspoonful of the following powder, added to a pint (500 c.c.) of tepid water, forms an efficient preparation for the lavage:—

℞ Powdered boric acid,
Sodium bicarbonate,
Sodium chloride, equal parts.

Add a little crystalline menthol, mix well, and grind.

A ball syringe should be employed in the douching, but great gentleness is necessary. If the head is bent somewhat forward and the patient performs rapid, sharp expirations through the mouth, there will be little danger of the solution entering the sinuses. On no account, however, should a swallowing movement be made.

Where there is a tendency to dryness and crusting, local treatment is best carried out by means of an oily solution sprayed with an atomizer:—

℞ Mentholis, gr. v (0.3 Gm.).
Camphoræ, gr. ij (0.12 Gm.).
Olei eucalypti, ♏iij (0.2 Gm.).
Olei amygdalæ dulcis, q. s. ad f℥j (30 Gm.).
M. et ft. solutio. (Jour. Med. Soc. of N. J.)

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CONTENTS. *(Continued from front cover page.)*

Lack or Excess of Iodine as Factor in Thyroid Disease. Grumme 663
Epinephrin Content of Adrenals after Various Anesthetics. Oliva 664
The Stomach in Exophthalmic Goiter. V. F.Moller 664
Thyroid Grafting. Paschoud 665
Pituitary Extracts in Obstetrics. Lindeman 665
Intravenous Injections of Hypophyseal Extract in the Treatment of Post-partum Hemorrhage. Kreiss 665
Parathyroid Insufficiency and Thyroid Transplantation. Poggio 665
Acromegaly Following Panhysterectomy. K. Goldstein 666
Successful Epinephrin Treatment in Osteomalacia. Salis 666
Sensitiveness to Epinephrin in Dementia Precox. W. Schmidt 666
Comparative Action of Epinephrin and Histamine on the Heart and Blood-vessels. W. I. Berezin 666

DEPARTMENT ON GENERAL MEDICINE.

ORIGINAL ARTICLE.

The Treatment of Croupous or Lobar Pneumonia, in Particular that Including a Milk Diet.. By Louis Kolipinski 667

CYCLOPEDIA OF CURRENT GENERAL LITERATURE.

Accessory Sinus Suppuration, Vaccine Treatment in. Ross Hall Skillern 673
Bronchitis, Treatment of Recurrent Sibilant. B. K. Rachford 673

(Continued on page 6.)

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CONTENTS. (*Continued from page 5.*)

Cancer of the Esophagus, Early Symptomatology of. H. H. Janeway 675
Cerebral Hemorrhage, Diagnosis of. Mendl 675
Common Colds, Treatment of. N. P. Stauffer 676
Deep Skin Grafts. J. S. Davis 677
Eye and Ear, Phagocytic Treatment of Diseases of. J. P. Henry 678
Hypotension with Definite Symptomatology. E. H. Goodman 678
Internal Piles, Prevention of Pain After Operation for. P. Lockhart Mummery 679
Liquid Paraffin in Enteric Fever with Constipation. L. P. Phillips 680
Nephritis, Serum Therapy in. Teissier and Thévenot 681
Potassium and Sodium Iodides and Iodine, Action of, on the Heart and Blood-vessels. D. I. Macht 681
Septic Processes, Alkaline Treatment of. Vorschutz 682
Sodium Salicylate, Rectal Administration of. L. G. Heyn 682
Tuberculosis, Emetine in Pulmonary. Raeburn 683
Wounds, Protection of Granulations in. V. A. Dodd 683

CLINICAL SUMMARY.

Clinical Summary 684

BOOK REVIEWS.

A Handbook of Psychology and Mental Diseases. By C. B. Burr 699
Infant Feeding. By Clifford G. Grulee 700
Taschenbuch der Magen- und Darm-krankheiten. By Walter Wolff 700

(*Continued on page 7.*)

CONTENTS. (Continued from page 6.)

PUBLISHERS' DEPARTMENT

THE GENERAL FIELD

A Question Hard to Settle ... 703
Autocracy ... 703
Made in America ... 702
One Barbarous Phase of the War ... 704
Sauer Kraut ... 702
The "Efficiency" Fakir ... 701
Very Poor Guides ... 704
Where the Cruelty Laws Should be Invoked ... 701
Widening the Breach ... 702

NEWS AND THERAPEUTIC HINTS

Acne Punctata ... 10
Acute Bronchitis in Children ... 22
An Antipruritic Powder ... 7
An Effective Combination in Gout ... 27
Antiseptic Foot Powder ... 12
A Remedy for Boils and Skin Infections ... 24
A Simple Method of Treating Warts ... 22
A Soap Paste Useful for Purposes of Lubrication ... 25
Asthma ... 12
Belladona in Gastric Ulcer ... 18
Brittle Nails ... 16
Calcium Salts in the Treatment of Progressive Deafness ... 23
Chronic Cystitis ... 24
Chronic Icterus ... 1
Cold and Appetite ... 14
Eczema ... 17
Erysipelas of the Face ... 8
For Chilblains ... 7
For Oily Hair ... 21
For Pin Worms ... 9
Hypertrophy of Tonsils ... 25
Inhalation in Chronic Laryngitis ... 16
Infantile Colitis ... 9
Influencing the Spine by Breathing Exercises ... 14
Influenza ... 7
Iodine in Gastric and Intestinal Ulcer ... 10
Irritable Cough ... 4
Laryngismus Stridulus ... 23
Laxative Combinations ... 9
Lotion for Use in Urticaria ... 13
Liquid Paraffin in the Treatment of Intestinal Stasis ... 17
Lumbago ... 8
Method of Disinfecting the Nasopharynx ... 8
Myalgia ... 9
Nasal Catarrh—Chronic ... 4
Nephritic Colic ... 18
Neurasthenia ... 8
Nicotine Poisoning ... 8
Presence of Spore-Bearing Bacteria in Market Milk ... 18
Rheumatic Joints ... 10
Scarlet Fever ... 14
Seborrhea ... 13
The Relief of Pain ... 18
The Sugar Test of Water Purit ... 7
The "Triple Acid" Ointment for Pruritis ... 7
Tinea Favus ... 27
Treatment of Acute Rontgen Ray Dermatitis ... 13
Treatment of Cardiac and Nephritic Ascites ... 24
Treatment of Dyspnea in Pulmonary Tuberculosis ... 27
Treatment of Pruritus Ani ... 18
Ulcer of the Leg ... 18

NOTES AND COMMENTS

A Safe and Reliable Analgesic ... 33
A Sample Suggestion by Dr. Kilmer ... 37
Epidemiologist Wanted ... 33
Glyco-Thymoline for Colds ... 37
Human Health and the Foot- and Mouth- Disease ... 34
Sexual Neuroses ... 30
Utero-Ovarian Neuroses ... 30
The Apple Cures ... 37
The Tuberculous Invalid ... 30

NEWS AND THERAPEUTIC HINTS.

An Antipruritic Powder.

The following is recommended by Bulkley as effective in the relief of pruritus:—

℞ Camphor, ʒss.
Zinc oxide, ʒij.
Starch, ʒiv. (Med. Record.)

The Sugar Test of Water Purity.

It is sometimes useful to be able to obtain an idea of the purity or otherwise of a given water supply without incurring the expense of a full chemical and bacteriological analysis. Among the constituents of sewage are phosphates in comparative abundance. If a clear-glass bottle is nearly filled with the water to be tested, a lump or two of sugar added, and the whole corked tightly and placed in a sunny place for two or three days, the water should remain quite clear. If, however, it contains phosphates in excess, a milkiness will have developed in it, in which case the suspicion of contamination would be sufficiently confirmed to warrant a full analysis of the water supply before any more of it is used for drinking purposes. (Dietetic and Hygienic Gaz.)

Influenza.

℞ Equininæ, gr. xv.
Benzonaphtholis, gr. xv.
Sodii bicarbonatis, gr. viij.
Mist. acaciæ, fʒx.
Syr. acaciæ, fʒv.

M. Sig.: Teaspoonful every two hours. (Med. Herald.)

The "Triple-Acid" Ointment for Pruritus.

Brocq recommends the following as effective in the treatment of pruritus:—

℞ Phenol, Gm. j.
Salicylic acid, Gm. ij.
Tartaric acid, Gm. iij.
Glycerite of starch, Gm.lxxx. (Med. Rec.)

For Chilblains.

℞ Nitric acid, ʒiv.
Turpentine oil, fʒj.
Olive oil, fʒiv.

M. Sig.: Apply twice a day to the affected parts, with gentle friction, by means of a rag wrapped around the end of a small stick. (Walker, in Med. Summary.)

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Leeming-Miles Building, Montreal, Canada

NEWS AND THERAPEUTIC HINTS.

Lumbago.

℞ Potassi iodidi,
Potassi carbonatis, āā ʒj.
Tinct. aconiti, fʒij.
Aquæ, fʒx.

M. Sig.: Poison. Apply locally every three hours. (Erichsen, in Med. Fortnightly.)

Erysipelas of Face.

In sereve inflammation with oozing and suppuration it is better for the first day or two to apply dressings moistened with a 1 to 10 or a 1 to 20 solution of ichthyol, applying the pure ichthyol at a later stage. In an ointment it is not so active, and should only be used in cases with little inflammation. The following may be used when the inflammation has disappeared:—

℞ Ichthyolis, ʒss.
Zinci oxidi, ʒij.
Adipis lanæ hydrosi, ʒij.
Paraffini mollis, ad ʒj.

M. F. ung.

The following cream may be substituted:—

℞ Amyli, ʒj.
Zinci oxidi, ʒij.
Adipis lanæ,
Paraffinii mollis, āā ʒij.
Liq. hydrogenii dioxidi, fʒss.

M. F. cremor.

Should any telangiectasis persist, the following ointment will be found more effective:—

℞ Sol. Epinephrinæ hydrochloridi (1 to 1000), fʒss.
Zinci oxidi, ʒij.
Adipis lanæ, ʒij.
Paraffini mollis, ad ʒj.

M. F. ung.

(Castaigne and Fernet, in Merck's Archives.)

Nicotine Poisoning.

℞ Adonidini, gr. j.
Ammonii carbonatis, gr. xviij.
Camphoræ, gr. vj.

M. div. in pulv. No. xij. Sig.: One powder three times a day. (So. Clinic.)

Neurasthenia.

℞ Acidi phosphorici diluti, fʒij.
Fl. ext. cocœ, fʒvj.
Tinct. nucis vomicæ, fʒij.
Syr. Zingiberis, fʒiss.
Aquæ menthæ piperitæ, q. s. ad fʒvj.

M. Sig.: Tablespoonful after meals in water. (Merck's Archives.)

Method of Disinfecting the Nasopharynx.

The following prophylactic treatment is recommended by Vincent in the prevention of epidemic cerebrospinal meningitis, of diphtheria, measles, scarlet fever, acute poliomyelitis, influenza, etc.:—

1. Inhalations four or five times daily, for three minutes at a time, of the following liquid placed in a bowl which has been, in turn, immersed in a basin with very hot water:—

℞ Iodine, 20.0.
Guaiacol, 2.0.
Thymol, 0.25.
Alcohol (60 per cent.) 200.00.

2. Applications to the throat of the following solution, morning and evening, upon a cotton swab:—

℞ Iodine, 0.50.
Potassium iodide, 1.0.
Glycerin, 15.0.

3. Gargle of 1 per cent, hydrogen peroxid. (Jour. of Med. Society of New Jersey.)

NEWS AND THERAPEUTIC HINTS.

Infantile Colitis.

Roger advises washing out the bowel with this:

℞ Boiled water, f℥xx.
Hydrogen dioxide, f℥j.
Sodium phosphate, gr. xx.
Sodium chloride, gr. xl.
Sodium bicarbonate, gr. iv.

Do not distend the gut. (Monde Méd.)

For Pin Worms.

Mosse recommends injections of cold salt water several times daily, with suppositories containing the following:—

℞ Mercurial ointment, gr. iv.
Benzoinated lard, gr. viij.
White wax, gr. viij.
Cacao butter, ℥ss.

(Med. Herald.)

Myalgia.

℞ Methylis salicylatis, ℥iij.
Mentholis, gr. xx.
Linimenti aconiti et chloroformi (N. F.), f℥iij.

M. Sig.: Rub in every two or three hours.

℞ Antipyrinæ, gr. lxxx.
Sodii salicylatis, ℥ij.
Dioninæ, gr. viij.
Syrupi aurantii,
Aquæ, āā f℥j.

M. Sig.: Teaspoonful every three hours. (Jour. Med. Soc. of New Jersey.)

Laxative Combinations.

℞ Fluidextracti frangulæ,
Fluidextracti rhamni purshianæ, āā f℥vj.
Glycerini, f℥iij.

M. Sig.: One to two teaspoonfuls at bedtime.

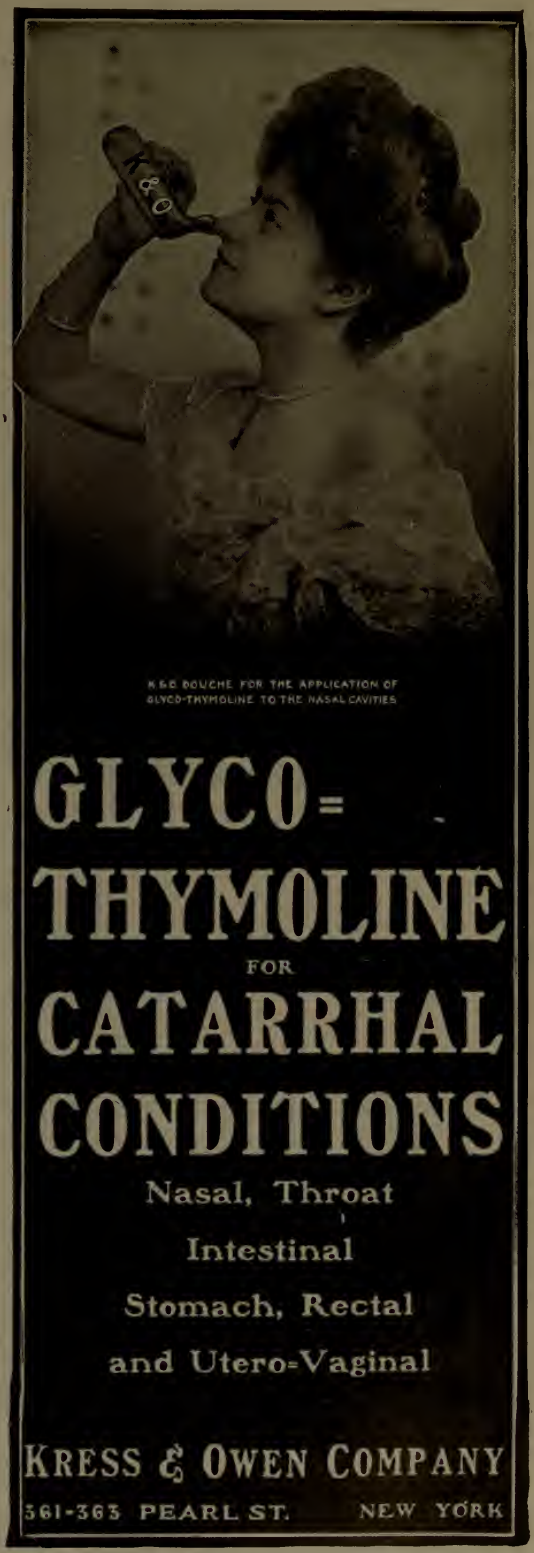
Or:—

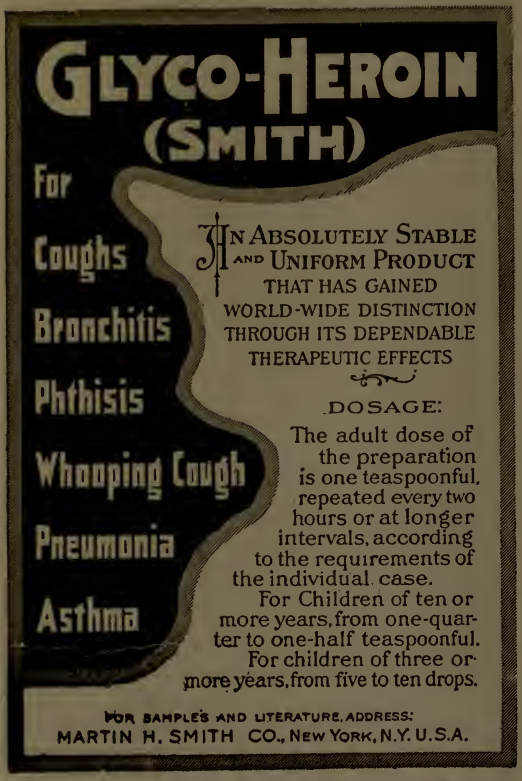
℞ Ext. rhamni purshianæ, gr. ¾.
Ext. hyoscyami,
Podophyllin, āā gr. ⅓.
Euonymin, gr. ⅜.
Pulv. saponis, q. s.

M. et ft. pil. no. j. Sig.: One or two pills at bedtime; or

℞ Euonymin,
Podophyllin, āā gr. 3/10.
Ext. hydrastis,
Pulv. saponis, āā gr. ss.

M. et ft. pil. no. j. Sig.: One pill at bedtime. (Med. Sentinel.)

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The adult dose of the preparation is one teaspoonful, repeated every two hours or at longer intervals, according to the requirements of the individual case.
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NEWS AND THERAPEUTIC HINTS.

Acne Punctata.

In Quinzaine thérapeutique is recommended the following lotion for use in this condition:—

℞ Resorcinolis,
Sulphuris loti, āā gr. lxxv (5 Gm.).
Aquæ cologniensis, f℥v (150 Gm.).
M. et ft. lotio.

The affected area may with advantage be rubbed with soap and water. Washing with a solution of borax is also useful:—

℞ Sodii boratis, ℥j to iss (30 to 50 Gm.).
Aquæ ferventis, Oij (1 liter).
Solve.

Overnight, a little of the following ointment should be kept over the affected area:—

℞ Betanaphtholis,
Camphoræ, āā gr. iiss (0.15 Gm.).
Resorcinolis,
Saponis, āā gr. iij (0.2 Gm.).
Cretæ præparatæ, gr. viij (0.5 Gm.).
Sulphuris præcipitati, gr. xxiij (1.5 Gm.).
Petrolati puri, ℥v (20 Gm.).
M. et ft. unguentum.

Simultaneous internal use of powdered charcoal may be of value. (N. Y. Med. Jour.)

Iodine in Gastric and Intestinal Ulcer.

According to Nottenbaum, tincture of iodine is a valuable hemostatic for hemorrhage from a gastric or an intestinal ulcer; in one severe case of typhoid fever in which the hourly evacuation of loose hemorrhagic stools was not checked by the administration of opium, ergotin, and other drugs, the patient recovered after taking tincture of iodine for twelve days. The author believes that the profuse diarrhea of typhoid fever is usually checked by this medicine. (Deut. med. Woch.)

Rheumatic Joints.

℞ Acidi salicylici, 10, solve in
Olei terebinthinæ, 10.
Sulphuris præcipitati,
Terebinthinæ, āā 40.
Misce.

The ointment is spread over the affected area and covered with an occlusive dressing. If the skin is very sensitive, the latter may be replaced by an ordinary bandage or the ointment dusted over with flour or talcum. After three to five days the application may be renewed. (Med. Sentinel.)

Chronic Icterus.

J. Castaigne, in Bulletin de l'Académie de Médecine, calls attention to the fact that tertiary syphilis is capable of causing an obstructive jaundice. Sometimes the manifestations suggest a protracted catarrhal icterus, without pain or tendency to cachexia. In one case under the author's observation, on the other hand, the jaundice was so deep and rapidly progressive as to suggest pancreatic cancer; the surgeon found instead sclerogummatous involvement of the liver. In still another case there were attacks of pain simulating true hepatic colic, with transient and later permanent jaundice. In two cases specific treatment caused the disturbances completely to disappear. In one of these, the first salvarsan injection caused a pronounced deepening of the jaundice (ascribed to a species of Herxheimer reaction), which disappeared, however, after subsequent injections.

Concluding, the author warns that in progressive obstructive icterus apparently indicating operative intervention, syphilis should be thought of in cases where the etiological diagnosis is uncertain, before the operation is decided on. If the various diagnostic means now available show the patient to be syphilitic, specific treatment should be tried, and if success attends it, an unnecessary operation, attended with some risk because of the patient's precarious condition, will have been avoided. (N. Y. Med. Jour.)

Concerning Medicinal Malt Preparations

The manufacture of malt preparations for medicinal use is a highly specialized professional work, and is successfully accomplished only under the direction of competent chemists. While in some respect similar to the brewing of beer, there are vital differences both in the materials which enter into these products and the processes of manufacture.

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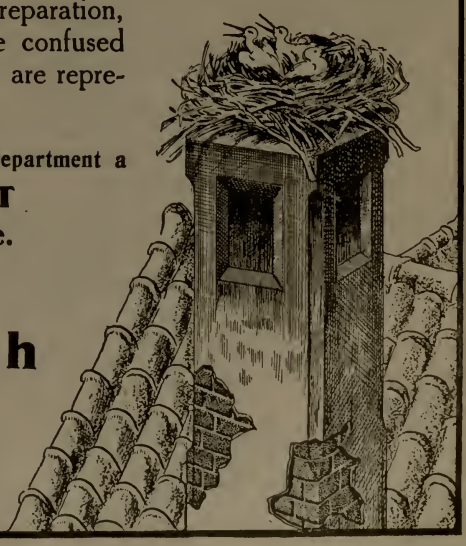

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Their Pathology, Pathogenesis and Treatment

By GEORGE E. PETTEY, M.D., Memphis, Tenn.

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¶ The author is a man of pronounced personality and of very extensive clinical experience, and these two factors are manifest in his book to a marked degree.

¶ The family physician can hardly hope to secure the same control over a habitue as does the medical staff of a well-conducted sanitarium, but he must surely be greatly the gainer from the possession of an accurate knowledge of the general principles of treatment which obtain in a first-class institution. All this is found in Dr. Pettey's book.

¶ Many books, however excellent, must necessarily duplicate others of greater or lesser excellence, but this tremendously earnest volume stands by itself—an original contribution to a subject of the most far-reaching professional and social importance. It will be read with absorbing interest from cover to cover.

¶ Dr. Pettey's book is particularly strong in its description of the pathological conditions which long indulgence inevitably produces. It tells how these conditions can be rapidly and radically eradicated from the system in a manner at once scientific and humane.

F. A. DAVIS COMPANY, Medical Publishers, 1914-16 Cherry St., Philadelphia, Pa.

NEWS AND THERAPEUTIC HINTS.

Antiseptic Foot Powder.

℞ Oil of eucalyptus, f℥ij.
Salicylic acid,
Powdered zinc oleate, of each, ℥j.
Powdered boric acid, ℥x.
Powdered French chalk, ℥xij.
Mix.

(Med. Summary.)

Asthma.

M. Ségard recommends the administration during the attack of the following:—

℞ Theobromine, Gm. 0.2.
Valerianate of caffeine, Gm. 0.05.

This should be given in a cachet, two to four times a day. (L'Hôpital; Med. Record.)

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NEWS AND THERAPEUTIC HINTS.

Treatment of Acute Röntgen Ray Dermatitis.

Powerful apparatus is being installed in many small hospitals, as well as in private laboratories. Untrained and unqualified men may be put in charge. If this be the case, sad results may follow and much harm be done. Occasionally we are going to get reactions in certain cases when Röntgen therapy is applied, and it is to this class the writer particularly suggests this exceedingly simple and absolutely efficacious remedy, white wash:—

℞ Zinci oxidi, ʒj (30 Gm.).
Phenolis, fʒss (2 c.c.).
Glycerini, fʒj (4 c.c.).
Aquæ calcis, fʒviij (240 c.c.).

Shake well and bathe area for five to ten minutes twice or three times a day. Avoid all heavy dressings and, when possible, expose the lesion to the air. Do not apply this remedy on a dressing and allow it to remain for five to ten minutes, but sop it on and let the air get to the lesion. Under no circumstances use an ointment. (W. J. Dodd, in Jour. Amer. Med. Assoc.)

Lotion for Use in Urticaria.

Bouchard employs the following:—

℞ Cocaine hydrochloride,
Chloral hydrate,
Resorcinol, of each, Gm. 2.
Glycerin, c.c. 6.
Alcohol, c.c. 40.
Cherry-laurel water, c.c. 60.
Distilled water, c.c. 9.

(Med. Record.)

Seborrhea.

Massage the scalp each night with the following ointment:—

℞ Resorcinalis,
Ichthyolis,
Hydrargyri oxidi flavi,
Sulphuris precipitati,
Pyrogallolis, āā gr. xv. (1.0)
Olei cadini,
Adipi slanæ hydrosi,
Petrolati, āā ʒiiss. (10.0.)

The scalp should be shampooed the next morning. (Journal de Médeciné; Med. Times.)

SANMETTO FOR **GENITO-URINARY DISEASES.**

A Vitalizing Tonic to the Reproductive System.

Specially Valuable in Prostatic Troubles of Old Men—Irritable Bladder—Cystitis—Urethritis—Pre-Senility.

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DOSE:—One Teaspoonful Four Times a Day. OD CHEM. CO., NEW YORK.

Beware of the so-called Elixir Compounds claiming to be "the same thing" or "just as good" if you do not wish to be disappointed.

NEWS AND THERAPEUTIC HINTS.

Scarlet Fever.

To produce sweating in scarlet fever or measles with dryness of the skin and diminished reaction of urine Hoyt recommends the following:—

℞ Tinct. aconiti, ♏xlviij.
Liq. potassii citratis, f℥iss.
Spt. ætheris nitrosi, q. s. ad f℥iij.

M. Sig.: One teaspoonful every three hours for an adult. (Merck's Archives.)

Cold and Appetite.

As everybody knows, there have been devised various methods whereby exceedingly low temperatures have been obtained.

While arctic regions provide some fairly cold weather, say, 60 or 75 degrees below zero, F.—the scientists have been able to surpass nature's achievements in this line, and when they wish 150 or 250 degrees below zero, they can obtain it. How this is done it is unnecessary here to state. It is interesting to note the effects of such low temperatures on animal life.

Dogs, when introduced to such an environment, withstand it well, provided they are covered in blankets and wool, and provided the experiment is of short duration. But a curious fact is that when they emerge from such a temperature they are fearfully hungry.

Having seen that dogs stood the experiments well, one experimenter tried the effects of intense cold upon himself and went down into his "cold pit" carefully dressed in warm clothing and furs. The temperature was maintained steadily at 110° C. below zero—166° F.

After four minutes the experimenter felt very hungry, and was more so when he put an end to the experiment, coming out of the cold after eight minutes. He took a hearty meal and enjoyed it thoroughly; and this seemed all the more strange since for years he had not known what it meant to be hungry. Appetite had been a word without meaning to him, and the digestion of each meal was commonly such a painful process that he ate very little and never enjoyed it.

He repeated the "cold experiment" daily for a week, and, after eight cold baths of eight or ten minutes each, his pain and distress after eating vanished. Appetite was restored and digestion became painless. (Harper's Weekly.)

Influencing the Spine by Breathing Exercises.

Mesnard says that the tonic effect of breathing exercises is an important factor in treatment of a spinal affection, but that the direct mechanical effect is even more important. Adenoids or pleural or pulmonary lesions, by obstructing the functioning of the air passages, are liable to induce deformity of the chest and spine. On the other hand, deformity of the latter may interfere with the respiration. Few physicians, he remarks, realize the danger of loss of balance in the trunk as a remote effect of pleurisy in a child, and few appreciate the importance of systematic breathing exercises to restore normal balance after removal of adenoids. The breathing is generally defective with scoliosis, and asymetric, and breathing exercises adapted to correct the asymetry are often surprisingly useful in aiding in the straightening of the spine. The breathing exercises also help to loosen up the vertebral articulations and restore the normal shape to the chest. The respiration should be of the costal type, and the patient should be trained to this preliminary to the wearing of an orthopedic corset. (New York Med. Jour.)

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.....M. D. Penna.

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Pepto-Mangan (Gude)
Especially useful in
ANEMIA of All Varieties:
CHLOROSIS: AMENORRHEA:
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MALNUTRITION: CONVALESCENCE:
As a GENERAL SYSTEMIC TONIC
After LA GRIPPE, TYPHOID, Etc.
DOSE: One tablespoonful after each meal.
Children in proportion.

Supplied in 11-ounce bottles only—never in bulk.

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Our Bacteriological Wall Chart or our Differential Diagnosis Chart will be sent to any Physician upon request.

NEWS AND THERAPEUTIC HINTS.

Inhalation in Chronic Laryngitis.

There are two methods of inhaling: In the first the medicament is atomized to impalpable vapor by means of sterilized air in a cabinet, while in the second the inhalation is through a sterile mouth-piece or nose-piece.

The medicated steam, a mixture of compound tincture of benzoin, 1:20, is inhaled at a temperature of from 140° to 170° F. for about fifteen minutes. This is followed by inhalations of oily substances without the aid of heat, either of the two following being used:—

℞ Camphoræ, 3j.
Olei picis liq., f3ij.
Iodi, gr. xx.
Creosoti, f3j.
Mentholis, gr. xxx.
Olei Sesami, f3iv.

Or a 5 per cent. solution of the following:—

℞ Iodi, 3vj.
Acidi oleici, 3ij.
Paraffini liq. f3iv.
Olei sesami, q. s. ad Oj.

The patient remains indoors from fifteen to thirty minutes after each treatment. The use of tobacco is prohibited. (E. Mayer, in Merck's Archives.)

Brittle Nails.

This annoying condition may be benefited by using one of the following ointments, which should be spread over the nails at bedtime:—

℞ Mastich, 3ss.
Sea salt, gr. xxx.
Colophony,
Alum,
White wax, of each, 3ss.

Or this:—

℞ Extracti nucis vomicæ, gr. viij.
Pilocarpini nitratis, gr. ij.
Sodii arsenatis, gr. j.
Zinci oxidi,
Calcii glycerophosphatis, āā gr. xv.
Cocci, q. s. pro color,
Adipis lanæ, 3ss.

M. Fiat unguentum. (Jour. of Med. Society of New Jersey.)

NEWS AND THERAPEUTIC HINTS.

Eczema.

Fellows claims that the following will give immediate relief and cure all forms of eczema:—

℞ Lactis sulphuris,
Zinci oxidi, āā ʒij.
Ichthyolis, ʒss.
Mentholis, gr. xxx.
Petrolati, ʒiv.

M. Sig.: Thoroughly rub in each night after washing with sulphur soap or some germicidal soap. (So. Clinic.)

Liquid Paraffin in the Treatment of Intestinal Stasis.

R. Murray Leslie, in the American Practitioner, refers to liquid paraffin (petroleum oil) as by far the most valuable remedy available for intestinal stasis. In the majority of early cases its judicious use, in association with diet modifications, hygienic measures, and in some cases supporting belts, affords permanent relief. It acts both as a lubricant and protective. The former action is exerted mainly in the large intestine. Full doses may shorten the time of passage of the food from stomach to rectum by as much as one-half. The protective action is exerted over any slight breaches of continuity in the intestinal epithelium, and tends to prevent systemic bacterial invasion as well as toxic absorption.

Most patients experience no difficulty in taking pure liquid paraffin as such. If desired, however, flavoring agents such as lemon and peppermint may be added, or the remedy given in capsules. It is best administered two or three times daily instead of in a single large dose at bedtime. The author generally begins with one or two teaspoonfuls before or after meals, then often increases the amount to one, two, or even more tablespoonfuls. The full lubricant effect is not obtained for several days, and it is therefore advisable not to increase the dose until after four or five days. When the bowels have begun to act regularly, the dose may be gradually diminished, and the minimum effective amount then continued indefinitely. In children, teaspoonful doses generally suffice; in infants, half dram doses. Some children dislike the remedy, but will take it readily if milk, sugar or peppermint is added.

The use of liquid paraffin in constipation in children, particularly those suffering from digestive disturbances and colicky spasms, will prevent the onset of many an acute or chronic bacterial infection. The author uses it in preference to all other aperients for children, even castor oil, which may cause harmful irritation in certain congestive conditions of the intestinal mucous membrane. He has also had gratifying results in mucous colitis in adults. In the few instances where intestinal stasis is aggravated by the presence of definite kinks, pelvic adhesions, etc., with well marked obstructive symptoms, toxemia, and severe abdominal pain, the remedy in question, with other simple measures, may fail, in which event the author unhesitatingly advises surgical interference, particularly the short-circuiting of the ileum into the pelvic colon, as recommended by Lane. (N. Y. Med. Jour.)

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SAMPLES AND LITERATURE SUPPLIED TO PHYSICIANS PAYING EXPRESS CHARGES.
Laboratory of JOHN B. DANIEL, Atlanta, Ga.

NEWS AND THERAPEUTIC HINTS.

Nephritic Colic.

℞ Potassium bromide, 6 Gm.
Cherry laurel water, 5 c.c.
Syrup of ether, 30 c.c.
Morphin hydrochloride, 0.05 Gm.
Valerian water, 120 c.c.

M. Sig.: A dessertspoonful every half hour until the pain is eased, but not to exceed five doses. (Robin, Monde Méd.)

The Relief of Pain.

A. P. Luff states that when the use of morphine is not desirable a combination of analgesics such as the following may be employed:—

℞ Novaspirin, gr. vij.
Pyramidon, gr. vj.
Quinine salicylate, gr. iss.
Codeine, gr. ⅓.

This is to be prescribed in a cachet to be taken every four hours. (Med. Record.)

Treatment of Pruritus Ani.

Two remedies for the treatment of pruritus ani, both said to be effective, are suggested by Cropper. The first of these is tincture of iodine (B. P.), which may be used in one-half or full strength. It is painted over the mucous membrane of the affected area, usually about three times a week. Care should be taken not to excoriorate the skin.

The other remedy is a compound tincture of benzoin. This is said to be even more effective than the iodine, and it is cleanly and does not soil the linen. It may be used twice or thrice daily and it never irritates. Within two minutes after application, the spirit in the tincture evaporates, and then all temptation to scratch the part disappears. (British Medical Journal.) Hosp. Bull.)

Belladonna in Gastric Ulcer.

E. Müller recommends the following powder in the treatment of the pains of gastric ulcer:—

℞ Extract of belladonna, 0.02 Gm.
Bismuth subnitrate, 0.02 Gm.
Calcined magnesia, 0.4 Gm.

This should be given three times a day. ("Die Therapie des praktischen Arztes.")

Ulcer of the Leg.

℞ Zinc perhydrol,
Pulv. amyli, āā ʒss.
Petrolati, ad ʒij.
Ft. unguentum.

℞ Zinc perhydrol, ʒjss.
Adipis lanæ hydros, ad ʒij.
Ft. unguentum.

℞ Acidi borici ʒss.
Cocainæ hydrochloridi, gr. iiss.
Sol. epinephrini (1:1000), fʒss.
Sol. perhydrol (1+9, ad fʒviij.
M. D. ad vitr. fusc. (Merck's Archives.)

Presence of Spore-Bearing Bacteria in Market Milk.

J. C. Pryor, in a study of over fifty samples of market milk in Washington, D. C., found the most important anaërobic organism present to be *B. aërogenes capsulatus,* which he believes to exist universally in milk. Aërobic spore-bearing bacteria were also found in practically all samples, such organisms belonging in general to the group of gelatin liquefiers. Such species do not develop normally in raw milk nor in the milk sold in Washington as "pasteurized," only the ordinary lactic acid bacteria being found. When their development is not hindered, however, by the lactic organisms, they produce decomposition and putrefactive changes. (Johns Hopk.

Hepatic Engorgement

--and derangements of the portal circulation in general --- can be quickly relieved by

Chionia

Years of experience have shown that this standard preparation of Chionanthus Virginica has no superior as a hepatic stimulant and tonic, for unlike other cholagogues it increases hepatic functions without producing catharsis. Its field of utility is broadened accordingly.

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depending on nervous excitation, reflex conditions, vasomotor disturbances or the various neuroses --- is especially amenable to the bromides in the form of

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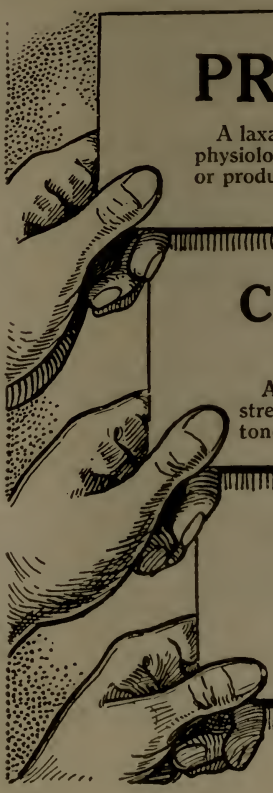

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A laxative that acts by stimulating physiologic processes; does not gripe or produce after-constipation.

Remarkably effective in the treatment of **chronic constipation** and all intestinal conditions requiring safe, pleasant and dependable action.

CACTINA PILLETS

A remedy that steadies and strengthens the heart by imparting tone to the heart muscle.

Invaluable in all functional cardiac disorders such as **tachycardia, palpitation, arrhythmia** and **whenever the heart's action needs regulating or supporting.**

SENG

A true secernent that stimulates the flow of the digestive fluids, thus aiding and promoting digestion.

Used in **atonic indigestion, alcoholic gastritis** and **dyspeptic conditions generally** with results both prompt and lasting.

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Fund for Belgian Physicians

Every medical man, every medical journal, every kind-hearted person in America, is urged to contribute—if only to the amount of twenty-five cents. Every penny will help.

Contributions may be sent directly to the **Fund for Belgian Physicians,** care of AMERICAN MEDICINE, 18 East 41st Street, New York City.

The all-important thing is to send your contribution, however humble it may be, **at the earliest possible moment.** Winter is close at hand, and the suffering our sorely afflicted brethren are sure to undergo will be appalling, unless we who are placed in happier circumstances do something NOW—RIGHT AWAY—TODAY, to lighten their burden of sorrow and distress.

Only a small contribution is solicited from each individual, but if a goodly number will respond, it is certain that a sum will be realized that will save our Belgian colleagues from the horrors of famine and the cold.

Send in Your Contribution TODAY

Address, FUND FOR BELGIAN PHYSICIANS
Care of American Medicine
18 East 41st Street
New York City

NEWS AND THERAPEUTIC HINTS.

For Oily Hair.

A tar or sulphur soap combined with raw eggs is said to be one of the best shampoos for oily hair. A valuable agent for cleansing the hair is a tablespoonful of lime water to each raw egg. The mixture should be beaten thoroughly and massaged into the scalp. The lime-water exerts a beneficial effect upon the enlarged sebaceous glands. Once in three weeks is often enough to wash an oily scalp, and too much washing seems to stimulate the flow of oil. Sprinkling the hair with corn meal and brushing it off again with a soft brush is beneficial, as it absorbs grease and removes dirt. A shampoo of one-half orris root and one-half corn meal makes an excellent agent. The mistakes that most persons make is in rubbing the shampoo into the hair, when it becomes a great source of annoyance because of the trouble it takes to remove it. A soft brush should be used, as a stiff one promotes the flow of oil. A mixture of three drams of glycerin and four ounces of lime-water should be kept on the dressing table and the scalp wet with it every night. (Med. Summary.)

PAIN

--- however severe or wherever located --- can be quickly and satisfactorily controlled by

PHENALGIN

Prompt and efficient in action, this dependable analgesic not only affords the anodyne effect desired, but without deranging digestion, locking up the secretions, producing constipation, or inducing a drug habit.

Thus it is that Phenalgin has supplanted opium and its derivatives for the relief of **Headache, Rheumatism, Gout, La Grippe, Lumbago, Neuralgia, Disorders of the Female and painful conditions generally.**

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However, this method of feeding must be employed with judgment in every detail or results may prove disappointing.

Any family doctor may have occasion to recommend buttermilk feeding, and he must inevitably profit by having accessible in his library that encyclopedic textbook of Fischer's which describes, with a wealth of detail, not only buttermilk feeding, but a vast array of subjects of which this topic is but a sample.

"DISEASES OF INFANCY AND CHILDHOOD." Their Dietetic, Hygienic and Medical Treatment. By Louis Fischer, M.D., Visiting Physician to the Willard Parker and Sydenham Hospitals, New York City. With 301 Illustrations, Mostly Original, Several in Colors and 43 Full-page Half-tone and Color Plates. 950 Royal Octavo Pages. Extra Cloth, $6.50, net; Half-morocco, $8.00, net.

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NEWS AND THERAPEUTIC HINTS.

A Simple Method of Treating Warts.

The method in question consists in covering the wart and the surrounding skin, to the width of 1 centimet, with ordinary caoutchouc plaster, and leaving it so covered for weeks—even, if necessary, for two or three months. Whenever the plaster becomes loose it must be removed and replaced by a new piece. As a rule, the plaster is to be changed once in three or four days. Any adherent residue of the caoutchouc is to be removed with ether or petrol, care being taken that the wart or the surrounding skin shall not be rubbed energetically, because irritation of the skin is not conducive to the disappearing of the wart. The author offers no explanation for the action of this simple method, and how it produces such excellent results from the cosmetic point of view, unless it is that the caoutchouc contains some substance which softens the wart and causes atrophy, but it is certainly efficient. (Dr. F. Szontagh, Lancet.)

Acute Bronchitis in Children.

Sutherland states that, if in the early stages, as often happens, there is a dry, irritating cough, the indication of increasing bronchial secretion by the inhalation of steam may give great relief. If there is dyspnea from bronchial spasm, fomentations to the back and front of the chest are indicated. In mild cases of bronchitis no other treatment is necessary than to apply to the chest some stimulating liniment. In more pronounced cases the bowels should be freely opened at the outset of the attack, and a simple febrifuge mixture should be ordered, such as the following:—

℞ Potassium citrate, gr. v.
Tincture of orange, ♏v.
Solution of ammon. acet., ♏ xv.
Camphor water, q. s. ad f℥j.

As regards cough mixtures, it is pointed out that these tend to upset the digestion. If bronchial secretion is defective and there is a harsh, irritating cough, iodide of potassium and carbonate of ammonium may be given in doses of 2 grains each. If bronchial secretion is overabundant, the following may be given:—

℞ Tincture of belladonna, ♏iv.
Dilute nitrohydrochloric acid, ♏iij.
Glycerin, ♏x.
Comp. infusion of gentian, q. s. ad f℥j.

If special sedatives seem called for, a convenient form of administration in children is the use of pastilles containing 1/50 grain of codein. In the convalescent stage codliver oil and hypophosphites give the best results. (Pediatrics.)

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Chlorali hydrati, gr. xxxij.
Syr. aurantii, fʒj.
Aquæ menthæ pip., fʒj.
M. Sig.: One teaspoonful every half hour. (Hughes, in Merck's Archives.)

Calcium Salts in the Treatment of Progressive Deafness.

Gradenigo states that the observation has frequently been made that deafness occurs in some women during or following pregnancy or lactation, apparently the result of lesions of the osseous capsule of the labyrinth similar to those of osteomalacia. Some observers attribute this deafness to functional changes in the glands of internal secretion, especially of the thyroid and parathyroid. Other observers believe that the deafness is the result of an otosclerosis of degenerative origin, and is allied to certain forms of congenital deaf-mutism. Gradenigo inclines to the view that the deafness of pregnancy and lactation is the result of changes in the thyroid and parathyroid, and for this reason finds a rational basis for the administration of calcium salts as a therapeutic measure. In a number of cases this method of treatment produced excellent results. He employed daily doses of about 3 grams of the chloride or lactate of calcium. The hypodermic administration is dangerous, frequently leading to abscess formation. (Presse Otolaryngologique.)

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Acute Bronchitis in Children.

Sutherland states that, if in the early stages, as often happens, there is a dry, irritating cough, the indication of increasing bronchial secretion by the inhalation of steam may give great relief. If there is dyspnea from bronchial spasm, fomentations to the back and front of the chest are indicated. In mild cases of bronchitis no other treatment is necessary than to apply to the chest some stimulating liniment. In more pronounced cases the bowels should be freely opened at the outset of the attack, and a simple febrifuge mixture should be ordered, such as the following:—

℞ Potassium citrate, gr. v.
Tincture of orange, ♏v.
Solution of ammon. acet., ♏ xv.
Camphor water, q. s. ad f℥j.

As regards cough mixtures, it is pointed out that these tend to upset the digestion. If bronchial secretion is defective and there is a harsh, irritating cough, iodide of potassium and carbonate of ammonium may be given in doses of 2 grains each. If bronchial secretion is overabundant, the following may be given:—

℞ Tincture of belladonna, ♏iv.
Dilute nitrohydrochloric acid, ♏iij.
Glycerin, ♏x.
Comp. infusion of gentian, q. s. ad f℥j.

If special sedatives seem called for, a convenient form of administration in children is the use of pastilles containing 1/50 grain of codein. In the convalescent stage codliver oil and hypophosphites give the best results. (Pediatrics.)

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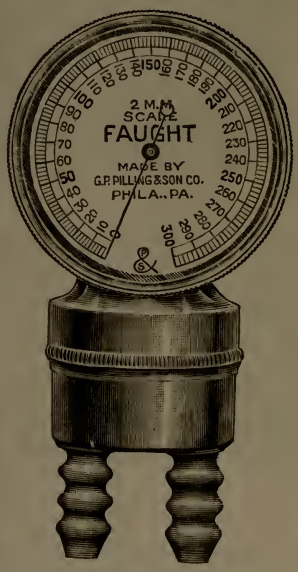

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NEWS AND THERAPEUTIC HINTS.

Treatment of Cardiac and Nephritic Ascites.

Goodhart and Still recommend the following as useful diuretics in children:—

℞ Tincture of digitalis, f℥j.
Solution of acetate of ammonium, f℥iss.
Spirit of nitrous ether, f℥ij.
Syrup of tolu, f℥ss.
Caraway water, ad f℥iij.

M. et Sig.: One teaspoonful every two or three hours.

℞ Tincture of digitalis, f℥j .
Theocin sodium acetate, gr. xx.
Spirit of chloroform, ♏xxx.
Glycerine, ad f℥iij.
Peppermint water, ad f℥iv.

M. et Sig.: Two drams every six hours may be given to a child eight years old. ("Diseases of Children," Med. Record.)

A Remedy for Boils and Skin Infections.

We have recently given the experience of Dr. Tweddell, who, in treating furunculosis, seems to get better results with dilute sulphuric acid than with any other remedy. Now let us quote Carroll W. Allen, who, after using a variety of remedies, including autogenous and stock vaccines, sulphur baths, carbolic-acid injections and baker's yeast, all in his own person (for he was the sufferer in this instance) finally resorted to dilute nitromuriatic acid, of which he took 10 to 15 drops in water after each meal. Within a few days he began to note improvement; the well-developed lesions soon disappeared and those in the process of development were quickly aborted. As a result of his experience he now recommends this remedy to others. (New Orleans Medical and Surgical Journal.)

Chronic Cystitis.

Both boric acid and benzoic acid are useful adjuvants to the treatment of chronic cystitis, through their antiseptic effect on the urine, each in 5-grain doses, rapidly increased to 10 grains. They may be given jointly, as in the following prescription:—

℞ Sodii boratis,
Acidi benzoici, āā gr. x.
Infusi buchu, f℥ij.

M. Sig.: Three times a day. (Tyson, in Merck's Archives.)

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Hypertrophy of Tonsils.

℞ Iodi pur., gr. j.
Potassi iodidi, gr. ij.
Tinct. opii, ♏xx.
Glycerini, f℥iv.

M. Sig.: Paint the tonsils morning and evening, and use as a gargle a teaspoonful to a glass of warm water. (Moure, in Med. Fortnightly.)

A Soap Paste Useful for Purposes of Lubrication.

A. Labat, in Journal de médecine de Bordeaux refers to the fact that the lubricant preparations in general use for vaginal and rectal examinations are usually of fatty nature and can be removed from the fingers or gloves only by vigorous brushing with soap and water. The following combination not only posesses the unctuous consistence of petrolatum, but can be removed by merely washing the fingers or gloves with water:—

℞ Saponis pulveris, ℥viss (25 Gm.).
Glycerini, f℥xiss (45 Gm.).
Aquæ destillatæ f℥xviss (61 Gm.).

M. et ft pasta.

The soap is dissolved in the mixture of glycerin and water on a water bath. The whole is then poured into a mortar and beaten up for some time until a homogenous paste is obtained. The paste is then kept in sterile containers. (N. Y. Med. Jour.)

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Department on the Internal Secretions

Original Articles and Summaries of Selected Articles

NEW INTERNAL SECRETIONS AND A NEW FUNCTION OF THE BLOOD-VESSELS.*

By R. LÉPINE, M.D.,
LYONS, FRANCE.

When a gland is not provided with an excretory duct, there is ground for supposing that it throws into the blood an internal secretion, but this cannot be, *ipse facto,* affirmed with certainty. Blum a few years ago still held that the thyroid gland does not produce such a secretion and that its sole function is to destroy toxic substances. Metzner, as regards a secretion of the spleen, remains doubtful. To the author, however, it hardly seems that one can doubt its existence, for Schiff, Herzen, and others have shown that this gland exerts an influence upon the production of trypsin in the pancreas. The author has personally performed experiments which have seemed to him to justify this view.

Like several of his predecessors, Brown-Séquard thought that internal secretory products must be sought for in the venous blood, and that "if the fluid derived from the tissues yields insufficient results, it is the venous blood from these parts that must be injected." This assertion appears to the author quite open to question, for there are definite facts proving conclusively that the venous blood of an organ does not always clearly contain its internal secretion—thus, various investigators have failed to find that blood from the pancreatic vein excites glycolysis. True, Hédon, causing the blood from the caudal pancreatic vein of a normal dog to pass into the venous system of a depancreatized dog, found the glycosuria in the latter

* Summary of article in Revue de médecine, February, 1914.

animal to be considerably reduced thereby; but the glycosuria did not entirely cease, nor was the hyperglycemia diminished to a noteworthy extent. This was due to the fact that the lymphatics could not be taken into account in this experiment. The lymph of the thoracic duct (especially after stimulation of the nerves to the pancreas with the faradic current) has a very pronounced influence in activating glycolysis (Lépine and Boulud), and proof that a flow of lymph is essential for general glycosuria has been supplied by Biedl who, upon interrupting this flow by ligation of the thoracic duct or the production of a fistula leading the lymph to the exterior, observed glycosuria as a result in two-thirds of the dogs thus operated.

That a portion of the internal secretion of an organ should be delivered through the lymphatics, which constitute the natural efferent pathway for the interstitial fluids bathing the tissues, cannot be deemed surprising. It is even a possibility that, at least in some organs, it is only the excess of internal secretion which passes into the vessels, by virtue of complex physical laws as yet far from being well understood. If, for example, the interstitial fluid of an organ contains more than 4: 1000 of sugar, and if the endothelial cells of the lymph-spaces and capillaries do not stand in the way, a portion of this sugar will necessarily pass by osmosis into the blood, which contains only 1: 1000 of sugar; but, unless the endothelia are endowed with special properties, not all the sugar will pass into the blood. Just how much actually will enter the blood cannot be stated. (Ishimori, after puncture of the floor of the fourth ventricle, found the lymph-spaces of the liver greatly dilated, and even containing glycogen granules.)

To obtain complete information concerning the internal secretion of an organ it would be necessary to collect not only the venous blood but also the lymph, and to be able, by chemical or biologic methods, to estimate the amount of internal secretory principles present. This cannot now be done, but in spite of the great difficulty attending collection of the lymph from the narrow lymphatic channels, it is not impossible that, through progressive improvements in technique, the fluid will in future become available, either directly or by an indirect method, *e.g.*, by collecting the lymph from the thoracic duct after having interrupted the flow of lymph into it from certain definite regions.

On the other hand, that a portion of the internal secretions is discharged directly into the blood has been established. The passage of certain of these secretions in the blood is, in fact, greatly facilitated by a histologic feature pointed out by Minot, viz., that in some organs the blood capillaries are in immediate contact with the parenchymatous cells. Indeed, in certain localities these capillaries, according to Minot, lose their own endothelium.

The author recently discovered, with Boulud, that a segment of a vessel (artery or vein), if obtained immediately after the death of the animal and immersed in the blood issuing from a vessel preserved as far as possible from glycolysis, has the power to split off the combined sugar in the blood. If placed in a solution of phloridzin it will likewise cause cleavage of the latter, in part at least; a solution of monobutyrin is also

partially broken up by it. Thus it is clear that vascular wall tissue can set free ferments. The latter can be extracted with water, for water used to wash a vessel exhibits the same property as the vessel wall itself. Passage of these ferments from the vessel walls into the blood takes place under normal conditions, for normal blood contains them—although, to all appearances, in rather small amount. Under certain conditions, the amount in the blood is manifestly increased. In respect of the ferment that splits off combined sugar in the blood, this was proved in the following experiment of the author: A cannula was placed in each femoral vein, the sciatic and crural nerves cut on one side only, and a sharp blow with a mallet delivered on the animal's head in order to produce pronounced concussion of the brain, with temporary arrest of respiration, etc. One or two minutes after the mallet blow, blood was collected simultaneously from the two veins and kept under conditions inimical to glycolysis. Then fifteen or thirty minutes later, the amount of sugar in the two samples of blood was ascertained. The blood from the side with uncut nerves was found to contain more sugar than that from the side upon which the nerves had been cut. This fact, observed repeatedly by the author, is apparently to be explained thus: As a result of the cerebral concussion there was produced in the tissues, on the side of the uncut nerves, some substance of the nature of a diastase which caused *in vitro* liberation of glucose at the expense of the combined sugar in the blood. This substance could, of course, not be produced on the side on which the nerves had been cut, the influence of the cerebral concussion not being exerted because of their section.

Other observations have shown that a nervous influence increases (through the ferment already referred to) the combined sugar in the blood. Seegen, for example, after faradic stimulation of the crural nerve, found the sugar in the femoral vein increased in amount; it was not increased upon direct stimulation of the muscle. Asher and Karauloff have similarly noted an increase in the amount of sugar in the submaxillary vein upon faradic stimulation of the chorda tympani. Thus, a nervous influence is capable of increasing the blood's asset in free sugar in the area supplied by a stimulated nerve. As the saliva contains no sugar, unless it be in exceptional instances, it is probable that the sugar produced in the capillaries of the submaxillary gland is consumed in setting free energy. Seegen's observation tends to show that combined sugar is liberated in the capillaries of muscle tissue during muscular contraction.

Not so many years ago our knowledge of the physiology of the blood-vessels was confined to the vasomotor action which regulates the capillary circulation and, in part at least, the blood-pressure. Yet over thirty years ago Ludwig and Brasol had already shown that a few moments after an intravenous injection of glucose, before the kidneys could eliminate an appreciable quantity of it, the glucose was no longer in excess in the blood, having passed into the lymph and tissues. This almost instantaneous depuration of the blood, ofttimes noted, has since been studied after intravenous injection of various salts, sodium chloride in particular. Thus, the blood-

vessels have in themselves the power to eliminate from the blood substances present in it in excess. But they are also capable of causing to enter into the blood substances present in excess in the tissues and useful internal secretions, notably ferments: An hypoglycemia, *i.e.*, the presence in the blood of an amount of sugar less than normal, causes transudation through the endothelium of a ferment which, by its activity, increases the quantity of sugar in the blood. Probably Hanriot's lipase or fat ferment likewise passes into the blood when there is a need for the liberation of energy. Achard has found the lipase in the blood serum increased in diabetics, perhaps in order to make up for the insufficient glycolysis. Thus, the small vessels can, on occasion, supply an increased amount of energy not only through vasodilatation but by causing ferments to pass into the blood.

Is this entrance of ferments into the blood the result of an actual secretory process? Such a possibility cannot be countenanced, for the flat endothelium of the vessels does not present the features of a true secreting cell; it allows to pass in, however, to a greater or less extent, according to conditions as yet unknown, the ferments already existing in the adjacent tissues. The results of experiments performed by the author with Boulud proved this; the aorta was found to contain ferment even after the intima had been removed from it by scraping. It is known, moreover, that the ferment which breaks down phlorizin is present in the renal parenchyma, and Hanriot's labors have shown that the lipase of the blood (which is not identical with that of the pancreas), is met with in the liver. These ferments are more widely distributed than has hitherto been thought; the author has found them in the omentum, the pericardium, the spleen, the nerve trunks, etc. It is even possible that they are produced in all tissues.

THE MEDICAL MANAGEMENT OF EXOPHTHALMIC GOITER.*

By ROBERT ABRAHAMS, M.D.,

NEW YORK, N. Y.

Prevention.—As in all other affections prevention in this disease is superior to cure. Preventive measures may not succeed in every case, but one's efforts are rewarded in some. The foundation of the trouble, the author believes, is laid in the turbulent days of puberty. It is a matter of common observation that the thyroid gland in young girls swells before and partly during menstruation, to return again to normal size when the period is over. The disturbance of the nervous system before and during menstruation manifests itself in many ways. These manifestations are apparently physiological, but their frequent repetition concurrently with added work, excitement, worry, or disappointment, increases and aggravates the normal manifestations and the nervousness becomes pathological. Under

* Summary of article in the Medical Record, June 20, 1914.

such circumstances, at every returning menstrual period the thyroid gland is found larger and larger until the increase in size becomes permanent. Then, if not before, the heart action grows rapid, the tremor of the hands is rendered visible, and one or two of the many eyelid signs will appear, if not the exophthalmos itself.

The prophylaxis is simple, viz., upon noticing these nervous disturbances and enlargement of the thyroid, one should insist on absolute rest both of body and mind before and during menstruation. If there be any elements of disquiet they should be promptly and radically removed.

Persistent polyuria in a young woman is a forerunner of Basedow's disease. Frequent and excessive micturition is occasionally associated with exophthalmic goiter, but he who interprets this sign properly, long before serious clinical symptoms appear, may prevent the occurrence of the disease. The author has under treatment a young woman with exophthalmic goiter who gives a history of polyuria which preceded the goiter, exophthalmos, and rapid heart by fully six months.

Another suggestive sign of the approach of exophthalmic goiter is unaccountable and persistent night-sweats occurring in young women without any discoverable organic lesion. These patients frequently have also palpitation of the heart.

Still another sign which occasionally heralds the onset of exophthalmic goiter in young and middle-aged women is paroxysmal tachycardia. After a time the paroxysmal attacks become continuous, constituting one of the four cardinal signs of the disease.

Yet one more sign which the author observed in one case and which preceded the disease by many months, occurring in a young anemic girl, was uncontrollable diarrhea, without a discoverable cause.

All these signs are danger signals. A quiet mode of living, digestible and nutritious food, suitable tonics, and a change of climate will prevent the occurrence of the disease.

Curative Treatment.—The treatment of a full-fledged case of exophthalmic goiter is difficult but not hopeless. One encouraging feature is the readiness with which patients lend themselves to every new form of treatment, with confidence that the new remedy will surely cure them. Such hope and cheer favorably affect a psychically disturbed patient. The ideal treatment of exophthalmic goiter consists in complete isolation, rest, and freedom from all care and worry. With such treatment no medicinal agents need be associated. Yet one sees many cases of classical Basedow's disease in jaded and careworn housewives do as well as their more favored sisters of leisure, with only the ordinary remedies.

One should never grow weary of looking for a cause in every case. If diligent efforts in that direction are not successful, syphilis should be thought of as a possible cause. In 1901 the author diagnosed and successfully treated 3 pronounced cases of exophthalmic goiter of syphilitic origin. He now advises that a Wassermann test be made in every case. Weber reported a number of cases of Graves's disease treated with *arsenic* and

mercury bichloride internally and cured; those were undoubtedly of syphilitic origin. Similarly, the literature of the disease abounds in instances where the external application of a *mercurial ointment* or *plaster* to the thyroid gland and the internal use of *iodides* resulted in either complete cure or very marked improvement. If a Wassermann is not available, one should resort to the therapeutic test, the patient taking potassium iodide for a week or so, added to or coupled with corrosive sublimate. If the patient shows signs of improvement the goiter may be assumed to be of syphilitic origin; if, on the other hand, the patient gets worse, the origin of the disease is not luetic.

The most distressing sign of Graves's disease is the rapidity of the heart action. In the author's experience tincture of *strophanthus* given in 5- or 10- minim doses, three times a day, has been most useful to steady the heart. For a long time strophanthus was discredited in Graves's disease for the reason that it produced diarrhea. At present, the tincture of strophanthus is free from this drawback. If strophanthus fails, tincture of *belladonna* in the same dose is a good "second best." Strange to observe, digitalis, the sheet anchor in many a form of cardiac disease, acts badly on the heart in Basedow's disease, although there is noted a strong functional similarity between the heart of Basedow's and some types of rheumatic cardiac lesions.

The other distressing conditions in exophthalmic goiter are tremor and nervousness. These are very well controlled by means of *ammonium bromide* in doses of 20 grains (1.25 Gm.) three times a day; this need be given for a short time only, for when the strophanthus begins to act the nervousness subsides, as a good share of it results from the consciousness of a rapid and pounding heart. The *lukewarm shower-bath* is another means to allay tremor and nervousness. The bath also works well as a hypnotic. *Iron* is rarely indicated, an opiate never. Once in a great while, when the patient is much disturbed at night with frequent urination, ¼ grain (0.016 Gm.) of *codeine* taken at bedtime will mitigate this evil.

There is no direct means of reducing the size of the thyroid except by the general method of treatment described. Yet *plaster* of any kind,—*belladonna, zinc,* or *adhesive*—seems to reduce the size of the gland, the reduction being apparently affected by pressure of the plaster. The author has seen a fair degree of diminution of the thyroid obtained by repeated application of *flexible collodion.* The patients instinctively know the value of external pressure as they learn to put ribbons tightly around their necks (although in the beginning the ribbons are employed to hide the deformity).

The eyes rarely need attention, although in one extremely severe case the eyelids were partially sewed up to keep the eyeballs from falling out.

The *diet* should be of the simplest kind; some of these patients have ravenous appetites for a time. The author indulges them until they are satisfied; after they are surfeited they become docile and are willing to take advice. Tea and coffee are the bane of exophthalmic goiter, and must be absolutely forbidden.

The author has used *Beebe's serum* and also the *antithyroidin* of *Möbius.*

Unlike Beebe's serum, the latter is given by the mouth. The dose ranges from 10 to 30 drops three times a day. The author reports a complete cure in one case. Another, at present under treatment, is doing remarkably well under the serum. This case failed to respond to complete rest in bed, strophanthus, belladonna, and Beebe's serum. After taking the antithyroidin the young woman was able to go to work and climb five flights of stairs several times a day without dyspnea, and remained free from nervousness.

Exophthalmic goiter once in a while is recovered from without treatment; more often its symptoms are held in abeyance by medical measures; occasionally ordinary remedies cure it. In view of all these considerations surgery should be the last resort. None of the author's patients were operated on.

FAMILIAL OBESITY WITH DISTURBANCE OF THE DUCTLESS GLANDS.*

By Dr. LAIGNEL-LAVASTINE,

AND

Dr. PITULESCO,

PARIS, FRANCE.

Of late the adiposogenital syndrome has been extensively studied and its relations with pituitary insufficiency shown. The most recent clinical and pathological observations, however, have seemed to indicate that the actual facts exceed in their complexity the theories already vouchsafed in this field. The author reports, as a contribution of additional material toward the elucidation of these problems, the history of a family, several members of which showed marked obesity in association with a certain degree of genital infantilism.

The case described in greatest detail was that of a woman 36 years of age. Already in childhood she had been notably stout; the condition became more marked as puberty approached. Menstruation began only at 18. During the six months following marriage there was but one menstruation. A normal pregnancy followed, but since then the patient had been amenorrheic and had not again become pregnant. In a few years obesity increased so markedly as to lead her to seek medical advice. Various forms of treatment at the hands of different physicians, including strict dieting, failed to arrest her increase in weight. Upon coming under the observation of the authors, she presented large fat deposits in the abdomen, pubis, breasts, thighs, hips, axillæ, and neck. The face, hands, and feet were less affected. No nodes or tender tumors could be detected in the fatty masses; yet the fat was not uniformly distributed, a species of lobulation being felt upon palpation. The patient had no spontaneous pain, with

* Summary of article in Bulletins et Mémoires de la Société médicale des Hôpitaux de Paris, February 19, 1914.

the exception of pain in the calcanea after fatigue. Rather forcible palpation of the fatty masses did not cause pain. The skin, distended by the fat, showed well marked striæ, and in its depth, a fine vascular network. The internal reproductive organs could only with difficulty be examined and the fat prevented an estimation of their size. The patient's lashes and eyebrows were mostly gone, and the pubic and axillary hair was entirely wanting, but the scalp hair persisted in fair abundance. The eyes were slightly prominent; this mild exophthalmos had appeared after the onset of obesity, according to the patient's statement. The pulse rate exceeded 90 per minute. X-ray examination did not reveal any appreciable changes in the sella turcica. The patient's weight was 136 kg. (300 pounds) and her height 1.82 meters (5 feet, 11½ inches). Psychically, the patient showed a slight excess of emotional sensitiveness, with sweating and exaggerated apprehension as to her health. She was rather jealous of her husband, and had thoughts of persecution on the part of the passers-by, who "made fun of her," etc. Latterly, she had expressed the intention of committing suicide on account of her condition, which she felt to be displeasing to others. Attempts at organotherapy with ovarine and ocreine (corpus luteum), then with thyroid substance, and finally with pituitrin administered intramuscularly were entirely unsuccessful.

The second patient was the sister of the preceding, 23 years old. She had married three years before, but had never menstruated and did not become pregnant. Her corpulence recalled that of her elder sister at the same age. The other features of obesity present in the preceding case were however, lacking or but slightly marked. The internal reproductive organs, examined by a gynecologist, were found small, and the ovaries were insensitive to palpation.

A brother of the two patients, 42 years of age had sought advice because of sexual impotence of long standing. Since puberty he had always been diffident of females, and "felt ashamed" in their presence. Homosexual tendencies were manifested at puberty, and passive sexual relations were practised both before and after marriage—in the later instance because of an unnatural aversion to his wife. He had no children. The genitals were found undeveloped, the testicles being small and soft and the penis small, and a large congenital inguinal hernia was noted. The other secondary sexual characteristics—pubic and axillary hair, mustache, and masculine voice—were but slightly marked. The patient's manner and gestures somewhat suggested femininity. Mentally, he was easily upset, and he showed slight tachycardia and exophthalmos. There was also a manifest tendency to obesity, the patient's weight being 98 kg. (216 pounds).

The preceding patient's elder brother was also hyposexual, having refused to marry, according to the brother, by reason of a timidity similar to his own. He was quite as stout as his sisters and brother.

The son of the first case referred to early showed a tendency to grow tall, being at 17 as tall as his mother (5 feet, 11½ inches). Incipient obesity was also apparent. The genitals seemed normally developed.

Summary and Discussion.—In this (Hebrew) family there had been 13 children, of whom only the 4 referred to lived, each of these exhibiting the same adiposogenital symptom-complex, manifested by obesity plus, in males, genital infantilism, sterility, and sexual perversion, and in females, late or lacking menstruation and slight or lacking fecundity. Eight of the remainder had died at an early age and the ninth had committed suicide at 16. The sole descendent in the third generation was likewise obese. The mother of the 13 (first generation) was stated to have been rather stout. The unusual stature of these subjects is also to be noted, and in some, the signs of incipient exophthalmic goiter.

In the first patient, the obesity presented the features of Dercum's disease in its diffuse form. The less pronounced obesity in the other members of the family might be considered, in view of the family relations, as an attenuated form of the same condition. From the standpoint of pathogenesis, one cannot but think of a relationship of these cases to the forms of obesity associated with genital infantilism and gigantism. Nevertheless, no pituitary abnormality could be discerned upon X-ray examination of the first case. The adiposogenital syndrome, in common with simple pituitary obesity, does not, indeed, necessarily imply the existence of a pituitary tumor. Cushing, Roussy, and others have shown that the adiposogenital syndrome may be produced by brain lesions merely in the vicinity of the hypophysis. The experiments of these authors have also shown the variable nature of the cause of this syndrome, its frequent dissociation, and the possibility of reproducing experimentally only one of its features.

The tendency to obesity in the entire family can hardly be explained through overeating, and an inherited predisposition seems clear. The authors consider that the term familial Dercum's disease—in a more or less attenuated form—can be applied to this group of cases, though in some of them the condition shows a transition from this form to ordinary familial obesity. The subnormal development of the reproductive organs in these cases and the diminution in the secondary sexual characteristics occurring not after but consentaneously with the increase in fat deposition seem to depend not upon the obesity itself but upon underlying disturbances of glandular function. The associated tendencies to alopecia, gigantism, and Basedow's disease also constitute evidence in favor of a polyglandular disturbance. The hypophysis is apparently involved in view of the constant obesity and more or less marked gigantism; the sexual glands, in view of the genital infantilism and its anatomic, physiologic, and psychic consequences, and likewise the thyroid, in view of the mild Basedow phenomena and perhaps the alopecia, though the latter would seem rather to be related directly to the genital insufficiency.

Although no Wassermann test could be performed—no inherited syphilitic stigmata being, however, apparent,—the possibility of syphilis as the original cause of the condition is suggested in view of the early death of a majority of the children in the family and the fact that syphilis is known to be the origin of many family dystrophies.

THYMUS AND THYROID.*

By A. P. DUSTIN, M.D.,

BRUSSELS, BELGIUM.

Physiologic and especially clinical observations seem to have shown clearly that close relations exist between the functions of the thyroid and the thymus. Basedow's disease, hitherto classed as a symptom-complex of thyroid origin, appears in some cases to originate in a disturbance of the function of the thymus. Though as yet only feebly supported by experimental evidence, this conception of the pathogenesis of the disease has already won recognition in surgery.

On the other hand, the thymus, experimental and clinical studies of which are now beginning to yield distinct advances, seems to be functionally related with the majority of organs and tissues. In this connection may be mentioned the relations of the thymus with hematopoiesis, with the sexual glands, with the lymphatic system, with the osseous system in its stage of growth, and with the nervous system (thymoprive idiocy). Each of these relations still demands thorough experimental investigation. Though apparently of varying nature, they are probably all susceptible of the same general explanation.

As regards the relationship of the thymus to the thyroid, the author sets forth investigations recently conducted by him on the development of the thymus in amphibia. As Gudernatsch first showed, tadpoles fed exclusively on thyroid substance rapidly show peculiar changes of form, comprising an abnormally early and accelerated growth of the limbs and shortening of the caudal fin, *i.e.*, the tadpoles exhibited all the signs of an exaggerated rate of development. Soon, however, these larvæ, incapable of proper nutrition and probably poisoned by toxic products, die *en masse*.

The author subjected to thyroid administration not only tadpoles in all stages of development receiving a normal diet, but also tadpoles previously fed exclusively with thymus substance. The latter are especially large and also contain a very large thymus, rich in small thymic cells. The first interesting fact presenting itself in the case of tadpoles fed first with thymus, then with thyroid, was that these tadpoles proved as sensitive to thyroid as normal ones; within five days the phenomena of metamorphosis became manifest and the animals succumbed *en masse*. As these larvæ contained a large thymus, it is permissible to conclude that the thymus does not exert a direct neutralizing action upon the thyroid principle.

Another question to be looked into was the direct influence of thyroid feeding on the thymic tissue. It was found that such feeding results in an intense pyknotic degeneration of the small thymic cells, the other intrathymic

* Summary of article in Annales et Bulletin de la Société royale des Sciences médicales et naturelles de Bruxelles, vol. lxxii, No. 5, 1914.

cells (vessels, myeloepithelioid cells), however, not showing any appreciable change. From this experimental fact, clearly established, interesting deductions can be made. Normally, in the majority of thymus glands examined, there are found a few small thymic cells in a state of pyknosis. This is generally considered an accidental condition, but from the author's viewpoint, pyknosis of the small thymic cell is one of the normal modes of disappearance of this type of cell, and represents one of the fundamental functional manifestations of the thymus. The author's experiments showed that these phenomena of pyknosis can be provoked and considerably augmented under the influence of the thyroid secretion. On the other hand, taking up the functional changes noticeable in the thymus, he is led to formulate the two following propositions:—

1. The only cellular elements constantly present in the thymus of vertebrates, and characteristic of this organ, are the small thymic cells; all the other cells (myoid, epithelioid, Hassall, and granular cells) are nontypical and inconstant, and can only take part in an auxiliary manner in the function of the organ.

2. The only constant and unquestionable functional variation in the organ, in all vertebrates, consists in a rarefaction or multiplication of the small thymic cells in accordance with the nutritive state of the organism or, more precisely, with the supply of and demand for nuclein.

All causes leading to a diminution in the organism of, say, "chromatin" —confining the argument to this substance in order to remain on a basis of observed facts and to avoid speculation as to the chemical processes, probably very complex, taking place—bring about atrophy of the thymus. Among such causes may be mentioned starvation, infectious diseases, suppuration, blood production, the elaboration of sexual products, growth, and perhaps also, demand of the nervous system for cytochromatin or Nissl bodies.

All causes leading to an increase of chromatin lead, on the contrary, to hypertrophy or, in the adult, at least to a longer period of preservation of the thymus. Among such causes are overfeeding, castration, intraperitoneal injection of egg yolk, etc.

The thymus appears to be an indispensable intermediary, perhaps in the elaboration, certainly in the accumulation, and probably in the distribution of nuclear components, to the entire organism, according to the requirements of the latter. Thus are readily understood the importance of the thymus during the period of bodily growth, its rôle in the process of ossification, its relative atrophy in the period of the formation of sexual products, and its intervention in the formation of blood-cells, all these being processes requiring a large supply of chromatin and a redistribution of the nuclear components in the organism. This conception of the thymic function permits of correlating most of the isolated and often apparently contradictory data to be found in literature. The author believes that it may throw light on a number of chemical (gouty affections) or morphologic (neoplasms) disturbances of the metabolism of nucleins. In the aggregate of

the important functions of nutritive regulation and hence of growth and tissue renovation the thymus plays an important rôle. The co-operation of other organs is, however, indispensable; the liberation or even the destruction of chromatin in the thymus can be provoked and governed by the activity of the thyroid.

ABSORPTION OF EPINEPHRIN FROM THE NASAL SUBMUCOSA.*

By J. D. PILCHER, M.D.,

CLEVELAND, OHIO.

W. B. Chamberlain having called attention to the unusually pronounced vascular effects occasionally obtained from the injection of epinephrin and cocaine into the nasal submucosa in nasal operations, the thought suggested itself that the nasal submucosa must be an unusually good absorbing surface, since neither epinephrin nor cocaine produces these marked effects on hypodermic or even intramuscular injection.

Experiments were performed by the author in which epinephrin was injected into the submucosa of the nasal septum and anterior turbinals of 15 dogs under anesthesia. The blood-pressure was recorded from the carotid artery. The usual dose of the drug was $\frac{1}{20}$ c.c. of the 1:1000 solution per kilogram of animal. Following about one-half of the injections (21 of about 40), there was a striking rise in blood-pressure. The mean rise in all injections was 50 mm. of mercury, with extremes of 10 and 160 mm.. In 3 experiments the maximal pressure attained was over 200 mm. (265, 238, 215 mm.). The pressure may rise quite promptly, reaching the maximal level in not more than thirty seconds and returning to the normal level within from two to four minutes. This effect is practically the same as that obtained from the rapid intravenous administration. In a somewhat larger number of experiments the pressure rose more gradually. The vascular effect seemed to depend somewhat on the pressure exerted in injecting the solution. When considerable pressure was required to introduce the epinephrin, a greater vascular reaction was usually obtained. The epinephrin was given at all levels of blood-pressure (from 30 to 170 mm.), and in one experiment, on the injection of $\frac{1}{15}$ c.c. per kilogram of epinephrin, the pressure rose from 30 to 190 mm.,—the maximum rise attained in any experiment.

Discussion.—1. These experiments show that the submucosa of the nasal passages forms an excellent absorbing surface, at least for epinephrin, and probably therefore for other drugs. Evidently this is due to the very great vascularity of the region, the injected material at times passing directly into the venous circulation, as was shown in the following manner: Injections of carmin gelatin were made into the turbinals and septa of

* Summary of article in the Journal of the American Medical Association, July 18, 1914.

several dogs either shortly before or after death. Microscopic examination of sections of these parts showed portions of the injected mass in the lumen of the veins, not only at the site of injection, but also at some distance from it.

2. The administration of epinephrin in this manner clinically may possibly be of serious moment. On the other hand, in persons in whom a sudden rise of blood-pressure is especially contraindicated—those with cardiovascular disease, arteriosclerosis, etc.—the nasal submucous injection of epinephrin may well be of serious moment. In susceptible persons, enough epinephrin might be absorbed to effect a serious rise in blood-pressure. A case in point met with in the experiments was as follows: A dog had received a non-fatal dose of phenol intravenously; this was followed in a few minutes by a nasal submucous injection of epinephrin. The blood-pressure rose rapidly, and when the maximum level was reached, the heart dilated and the animal could not be saved; the heart, weakened by the phenol, could not resist the high pressure due to the epinephrin.

3. In conditions of circulatory collapse necessitating rapid stimulation, the injection of epinephrin into the submucosa of the nasal septum or turbinals could well be of much value. The technique is simple and the quantity of the drug readily controlled. The method is of course not as satisfactory as the intravenous method when the latter is feasible, which is not often the case, however, in instances of sudden failure of the heart.

THE RELATION OF HYPERTHYROIDISM TO THE NERVOUS SYSTEM.*

By ALBERT C. BUCKLEY, M.D.,

PHILADELPHIA, PA.

It is very clear that the nervous system is implicated to a serious extent in exophthalmic goiter. There is much evidence to show that the disease occurs in individuals who seem to be predisposed in that they are the possessors of inherently unstable nervous systems. Exophthalmic goiter and nervous diseases, including insanity, occur frequently in different members of the same family. F. H. Packard, analyzing a series of 82 cases of Graves's disease with mental disorder, found a neuropathic heredity marked in 63 per cent.

By far the majority of patients suffering from hyperthyroidism present mental symptoms in some degree. In fact, mental symptoms may be the earliest noted; that is, before the cardiac or ocular symptoms become manifest. The most common are an intense, indefinite agitation, with more or less mental and motor restlessness. The patient is unable to settle down to any occupation, and complains of being distressed by any sudden noise, or unexpected news, this being accompanied by a palpitation that may last

* Summary of article in the New York Medical Journal, Dec. 6, 1913.

for several hours. Other patients suffer with marked excitement, sleeplessness, hallucinations, incoherence, refusal of food, dirty habits, emaciation, diarrhea, and exhaustion, which may terminate fatally.

Some instances of recurrent insanity have been recorded in which the mental symptoms and the goiter appeared and disappeared simultaneously.

Mental symptoms, especially hallucinations, can be produced by the administration of thyroid extract to persons who are susceptible.

No one type of mental disorder can be said to be characteristic of hyperthyroidism, but in the cases of severe grade, agitated depression and confusion with hallucinations seem to be most frequent. One case reported by J. P. Grieves was of a severe form of mania which terminated fatally after six days of pyrexia. Three days before death the gland was so reduced in size that it could not be palpated.

An interesting phase of the subject is furnished in a patient under the author's observation:—

A young woman in whom the usual symptoms of hyperthyroidism had developed was operated upon for a partial removal of the thyroid gland with what was considered a remarkable recovery. *Four years after* the operation the patient heard of a friend who had undergone a similar operation and had suffered a return of the symptoms. Almost immediately she became depressed and worried lest she should experience a return of her trouble. There were no indications of a recurrence, but examination revealed a laceration of the cervix, which was repaired, and a displacement, for which a shortening of the round ligaments was done. No improvement followed the operation and the patient became discouraged, refused to see her friends, and dwelt almost continually on the one idea of the possible return of the goiter. After the extraction of an abscessed tooth she became acutely ill with fever and rapidly passed into a typhoid state which lasted about four weeks, during which time she lost about 30 pounds in weight. For a few days she was stuporous, with difficulty in speech and swallowing. She slowly became clearer mentally, but still showed decided mental confusion. About six weeks later the confusion disappeared, but she had not returned to her normal mental state, giving way to violent attacks of temper.

At the time of her admission to the hospital she presented a suggestion of exophthalmos and a fine, scarcely noticeable tremor of the extended fingers, which became more marked when she was much disturbed. There was also a fine tremor of the muscles about the mouth, likewise increased under emotion. The superficial and deep reflexes were all exaggerated. The heart showed some extension of percussion limits. The pulse rate was only 76 to 80 a minute, soft, but showed a quick rise under emotion.

At the time of report the patient was in a state of depression, with agitation only shown when she was addressed, when she usually burst into a flood of tears, and at times almost a frenzy of grief. She was apparently on the verge of an emotional outburst at all times. Occasionally she ex-

pressed indefinite fears of impending danger. She was well oriented, had no fixed ideas, and was not hallucinatory.

Whether the hyperthyroidism, shock, or infection, or all three factors, were responsible for the psychosis in this case, the essential factor lay in the predisposition in the form of a hypersensitive nervous mechanism.

The four principal theories offered in regard to the etiology of exophthalmic goiter, three of which refer to the nervous system, are as follows: 1. That it is a disease of the sympathetic nervous system. 2. That the seat of the disease is in the medulla oblongata. 3. That it is a neurosis. 4. That it is primarily a disease of the thyroid gland.

Horaud in 1910 found a distinct thickening of the trunk of the right cervical sympathetic, compared with the normal, in exophthalmic goiter, and the cells of the ganglion had to a great extent disappeared. A series of 37 cases with changes in the nervous system was collected by Klein. Fifteen of the cases showed lesions in the neighborhood of the floor of the fourth ventricle. In 4 there were hemorrhages in the nucleus of the vagus. Bruce reported a case of myxedema following Graves's disease with mental symptoms leading to death from cardiac syncope, in which there were found hemorrhages into the nuclei of both vagi.

While this frequency of lesions in the central nervous system is worthy of attention, it must not be forgotten that the occurrence of hemorrhage can be explained through the altered vascular condition. A case has been reported in which enlargement of the thyroid gland suddenly developed in a middle-aged woman with the physical signs and symptoms of hyperthyroidism, and at the same time paralysis of the third, fourth, and sixth cranial nerves. This would suggest a thyroid which had been secreting in excess for a time without producing symptoms severe enough to attract the attention of the patient; later, a sudden exacerbation made itself manifest, the paralysis being the result of a sudden vascular disturbance or the sudden overwhelming of the nervous centers by the obnoxious materials. Dinkler states that the number and the severity of the symptoms in exophthalmic goiter suggest an anatomic basis for the manifestations on the part of the nervous system, but that no constant lesions have as yet been described, the various nervous changes reported having been more of the nature of complications or incidents. In a series of experiments upon animals by Tedeschi, in which lesions were produced in the restiform bodies, distinct symptoms of Basedow's disease occurred. It was found possible to reproduce those symptoms, after they had diminished or disappeared, by inducing a condition of hyperthyroidism. In thyroidectomized animals lesions of the restiform bodies did not produce the symptoms.

On the whole, the question is still to be answered, whether the disease is primarily one of the thyroid gland or one of the nervous system. If the gland is the primary seat of the disorder, the nervous system suffers chiefly in the reaction. If the disorder is fundamentally one of the nervous system, the thyroid is apparently affected through its blood-supply, which has been altered through a disturbance of the vasomotor apparatus. No matter which

may be the original seat of disturbance there is doubtless established a vicious circle. The excessive secretion affects the nervous mechanism controlling the circulation in the organ, which in turn intensifies the state of hypersecretion. There seems to be an hyperthyroid potentiality which is present in certain individuals, coupled with a peculiar nervous instability, and this combination of predisposing factors is what presumably is needed for the establishment of the syndrome seen in hyperthyroidism.

Abstracts from Current Literature on the Internal Secretions

Glycosuria in Diseases of the Pituitary Gland.—The existence of a "pituitary diabetes" is now generally admitted. At present there are 3 theories which are held to account for the occurrence of diabetes in lesions of the hypophysis. In cases of pituitary tumor the glycosuria is supposed to be due to compression by the tumor of certain neighboring nerve centers, in particular the center in the fourth ventricle. The second assumes that in such cases there are always co-existing lesions in the pancreas. The third considers that the glandular lesion produces the glycosuria.

Glycosuria of pituitary origin may show itself in three ways: sometimes as a symptom occurring among well-known symptoms of pituitary disease, such as acromegaly or gigantism; sometimes in the midst of a general symptomatology pointing to a tumor of the pituitary, and sometimes, though rarely, as a premonitory symptom of pituitary disease that ultimately dominates the clinical picture.

Glycosuria occurring in the course of acromegaly is considered by Pierre Marie a frequent symptom; he places its occurrence as high as 50 per cent. Other writers have given a lower percentage, but it is now well recognized that glycosuria does often exist in these diseases. It must be remembered that acromegaly does occasionally occur in infancy, although it is usually latent at this age; in infancy the liability of glycosuria to be missed is great. Glycosuria is by no means a terminal symptom of acromegaly or gigantism; it may, on the contrary, show itself in the initial stages of the disease. Light is thrown upon the glycosuria of acromegaly by a consideration of the urinary changes that occur in Fröhlich's syndrome—adiposogenital dyscrasia, due to pituitary insufficency; in this disease the diabetes insipidus exists and glycosuria is not found.

Glycosuria occurring in pituitary tumors in the absence of such characteristic symptom groups as acromegaly and gigantism, is not common, although published statistics must be taken with some reserve, in that they do not as a rule discriminate between true pituitary new

growths and those that originated in the juxtapituitary region, nor between those that are associated with hypertrophy of the gland and those associated with atrophy.

Cases in which patients have died from what was apparently ordinary diabetes mellitus, and in whom disease of the pituitary gland was found after death, are still more rare, although such cases have been recorded.

As to the pathological anatomy of the pituitary lesions that have been associated with glycosuria, most of the new growths are glandular in type, and those formerly described as sarcomatous were probably in reality glandular. At the same time, the type of the tumor is of much less importance than information as to whether the disease results in increase or in diminution of the gland function.

Functional increase of pituitary activity is generally attained by the administration of pituitary extract, and, although in this line the results are somewhat discordant, the consensus of opinion is that such administration results in glycosuria. The quantities necessary to produce glycosuria vary, and the resulting glycosuria is extremely inconstant in its severity and its duration. In man, for instance, the amount that must be ingested before sugar appears in the urine varies from ½ to 2 entire glands of the ox, and when it does appear it is transitory. It only occurs with a diet rich in carbohydrate food; the writers consider it an alimentary glycosuria. All the facts so far available go to prove the existence of a glycosuria directly dependent on lesions of the pituitary associated with increased activity of the gland. Paul Sainton and Louis Rol (Gazette des Hôpitaux, September, 1913; Medical Chronicle, January, 1914).

* * *

Diabetes Insipidus with Tuberculosis of the Pituitary Gland.—The author describes the case of a man aged 31 who had tuberculous periostitis at 9, and was operated on for tuberculous maxillary glands at 29. About four and a half months before his death he complained of anorexia, nausea, fever, and inability to do his work. Two months before his death the vision of his right eye failed completely in four days, beginning on the external side. At the same time the sight of his left eye began to fail, particularly on the external side. Six days later he was taken into hospital with faint perception of light in his left eye, blind in his right eye, very thirsty, and with occipital headache that prevented him from sleeping at night. The urine exceeded 6 liters a day, and the bowels acted regularly. The gait was normal. There was slight exophthalmos, which the patient said he had always had. He was very deaf in his left ear, less deaf in his right ear. The thyroid gland was not enlarged, and the heart, lungs, spleen, and sexual organs were normal. The blood count showed 80 per cent. of hemoglobin, 3,320,000 red cells, 12,500 whites, and a moderate lymphocytosis. The cutaneous tuberculin reaction was positive, the test for alimentary glycosuria negative.

The exophthalmos increased, the cheeks looked myxedematous, and ptosis of the right eyelid appeared. A month later a skiagram showed that the sella turcica was normal. The patient was delirious; 6 weeks after this he died comatose. At the autopsy the brain was found edematous; the pia contained numerous tubercles, especially at the base and along the Sylvian fissures. In front and at the sides of the sella turcica, and in the middle cerebral fossæ was a rounded mass of newly formed tissue, 5 cm. in diameter and 1.5 cm. thick in the middle. It was caseating, yellow-gray in color, and with an irregular surface; it raised up the dura mater and had eroded the bone a little. Its anterior part included and involved the hypophysis. Below the optic chiasm was a caseous node partly involving the optic nerves. The cecum and appendix were tuberculous, but the kidneys were sound both to the naked eye and microscope. It was found that the tuberculous mass had entirely destroyed and replaced the nervous and paranervous (posterior) parts of the gland, and had also invaded the anterosuperior and lateral parts of the glandular (anterior) lobe, leaving about four-fifths of it untouched. This uninjured part seemed unduly rich in fibrous tissue and in blood-vessels, but free from colloid secretion and from hemorrhages; the secreting cells here preserved their characteristic staining reactions, the eosinophile cells being increased in number. The invading tuberculous tissue was rich in giant cells; no traces of the nervous or paranervous lobes could be discovered. Numerous urinary analyses are detailed.

The author combats the generally accepted view that irritation of the paranervous lobe of the pituitary gland is the main or only cause of diabetes insipidus. Administration of extra quantities of sodium chloride to this patient showed that there was complete inability to secrete a concentrated urine, until toward the end when coma appeared; the specific gravity varies from 1004 to 1008, and the addition of sodium chloride to the diet augmented the quantity of urine passed from 5 to 10 liters, but did not increase its specific gravity. It is more reasonable to assume that the diabetes insipidus was due to irritation of the base of the brain, particularly of the region around the third ventricle, the corpora mamillaria, and the posterior perforated space. L. Borelli (Giornale della Reale Academia di Medicina, Turin, vol. lxxvi, 1913; Canada Lancet, March, 1914).

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A Revision of Hypotheses Regarding Endemic Goiter.—The alleged water-borne cause of this disease has attained especial prominence since H. Bircher related the distribution of the endemic malady in Switzerland to the occurrence of very definite geologic formations. E. Bircher extended the hypothesis with the contention that the etiologic agent is removed from the rock formations in the guise of a colloidal organic substance, by the waters flowing from them. To support this hypothesis, statistics of the incidence of goiter in relation to special types of water-

supplies were collected. Famous instances were cited, notably that of the village of Rupperswil, in which goiter was found to decrease after the introduction of a new water supply from a different (geological) source, and that of Asp, an isolated goiter region in the midst of a goiter-free district, where relief was similarly brought about. These and related observations appeared so convincing that the subsequent discussion largely revolved about other features. A further extensive study, however, carried out by Dieterle, Hirschfeld, and Klinger, in the same regions of Switzerland, which have been the sources of evidence for many years, has recently shown that when an accurate survey is made the distribution of endemic goiter proves to be entirely independent of rock, soil, or water-supply. Regions having geologically comparable water sources show a varying and variable incidence of goiter, and furthermore, certain sections of villages having entirely different water supplies may show a uniform frequency of the disease. The reputed improvements following a change of water supply are now charged to hygienic reforms rather than altered geologic factors. Geographic features, traffic, etc., appear to be of far greater importance in determining the seat of disease.

It is noteworthy that in affected districts certain families and houses exhibit repetition of the disease. There is some evidence to suggest the possibility of localized infection in the home for example. A hereditary relationship could not be demonstrated; for the fact that the children of goitrous parents are affected somewhat more frequently than others may be due to other simultaneously acting factors, such as frequency of contact, rather than the inheritance of disease. Females are everywhere more subject to endemic goiter than males, though the distinction does not appear clearly until after puberty is reached. It seems not unlikely that the presumably enhanced functional activity of the thyroid in the female renders the gland more susceptible to the noxious agent. Editorial (Journal of the American Medical Association, February 14, 1914).

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Progress in the Surgical Treatment of Exophthalmic Goiter.—Doubtless there is no exophthalmic goiter which is not accompanied by thymus disorder; probably this is a disease of the entire branchiogenous system, and accordingly also a multiglandular affection. In the majority of instances the thyroid is the chief organ diseased, but in another category of cases thyroid and thymus are equally and specifically affected. In thymus glands of this type changes similar to those in the thyroid can as a rule, be demonstrated. A species of "epithelialization" of the thymus can thus be spoken of. With such thymus glands there is extreme danger from a toxic action. In a third form of exophthalmic goiter the thymus is the chief organ diseased. This thymogenous type appears to be infrequent. That the thymus is involved in a given case of exophthalmic goiter can be determined with certainty only in a certain pro-

portion of instances; a broadening of the mediastinal shadow is rather frequently seen in the Röntgen picture. The symptom myasthenia also possesses some value in this connection.

The author calls attention to the increasing safety and benefit from operative treatment in Basedow's disease since adopting the practice of resecting the thymus along with the thyroid, or removing the entire thymus. The danger with thyroidectomy in exophthalmic goiter seems to be acute intoxication from the thymus, after the thyroid is gone. At Rehn's clinic there were 8 deaths from this cause alone in 130 operative cases up to 1911. Since then the thymus has been resected along with the thyroid, and there have been no deaths in the 200 cases. The capsule of the thymus is left, as its removal is liable to bring on serious hemorrhage. The operation is simple and easy but there must be a week or two of preparaton, psychic, dietetic and medicinal. Local anesthesia is used. Ice is applied to the goiter and heart. Klose (Berliner klinische Wochenschrift, January 5, 1914).

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Insanity and Amenorrhea.—A patient, when seen 21 years old, was anemic and constipated, and had suffered from melancholia for three years, during which time she had menstruated twice only, very scantily and with great pain. After more than twelve months of treatment, which included curetting, she was placed in an institution, where she spent a year. She was then found to be suffering from religious mania with amenorrhea, was occasionally vicious, and at such times refused food. It was decided to remove an ovary and to substitute for it a more normal organ taken from a sane person. A hysterectomy upon another patient provided the required material, which after removal was placed in Ringer's solution at blood heat. Four and a half hours later the abdomen of the insane woman was opened. Both ovaries were very small, hard, pale, and cirrhotic. The more abnormal of the two was removed, the broad ligament on that side split, and the new ovary, cut into three slices, was embedded in the nest thus provided. Recovery was uneventful, and twenty-four days after the operation a normal, painless, profuse menstruation took place. The mental condition improved rapidly, and in six months the patient was dismissed to her home. She was then menstruating regularly, had put on 6 pounds in weight, and was exceptionally bright and happy. She declared her intention of doing her utmost to repay her parents for the trouble and expense of her treatment; in a word, her insanity had entirely vanished. J. W. Dunbar Hooper (Australian Medical Journal, November, 1913).

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Protective Action of the Adrenal Glands.—Evidence goes to support strongly the view that the adrenal secretion can be brought into rapid and valuable action upon lines calculated to strengthen the individual against possible harm, and is similarly brought into play with the major forms of emotion. Its action consists of a shifting of the blood

from the visceral parts to the skeletal; an enhanced force of the heart beat; an immobilization of the viscera; and, in particular, an increase of sugar supply to those structures most needing it. The shifting of the blood favors the fuller action of the skeletal elements upon which repulse of injury depends; this is gained at the temporary sacrifice of the viscera, which are immobilized; the more powerful cardiac action is affected by the peculiar action of the adrenal secretion upon the coronary arteries, for these are the only vessels which dilate instead of contract with the action of adrenal. Lastly, the increased ability of the tissues to metabolize sugar increases their power, and in the skeletal tissues this is, again, just what is wanted. The whole gamut of changes afford the spectacle of a most intimate and closely organized arrangement for the rapid focusing of added power to those structures most valuable for the immediate end in view, namely, the protection of the individual. W. B. Cannon (American Journal of Physiology, xxxiii, 356, 1914).

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Experiments on the Pulmonary Circulation, Including the Action of Epinephrin.—The heart lung preparation obtained from the dog was used, and the heart volume recorded by a simple volume recorder already used by Starling and his pupils. The results obtained show that with a pressure of 80-100 mm. Hg. in the aorta the pressure in the pulmonary artery of the dog is 14 mm. Hg., while at the same time the pressure in the left auricle and in the vena cava inferior is about 7 cm. of *water*. On an average the pulmonary arterial pressure stands to the systemic arterial pressure as 1 : 6. In asphyxia the failing heart dilates, and the output of the left ventricle gradually diminishes, with a consequent fall in the aortic pressure. At the same time the pressure in the pulmonary artery, vena cava, and left auricle rises. When the right heart also fails the pressure in the pulmonary artery falls to that in the pulmonary vein and vena cava. Epinephrin causes diminished volume of the heart and raises the pressure in the pulmonary artery with a simultaneous fall of pressure in the left auricle. These effects on the pulmonary circulation must be due to a contraction of the lung vessels, since even in the isolated lung perfused with an artificial circulation, epinephrin produces a rise of pressure in the pulmonary artery. H. Führer and E. H. Starling (Journal of Physiology, December, 1913).

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Thyroid Insufficiency, Nervous Conditions, and Spastic Constipation in Women.—Report of 9 cases of nervous disturbance accompanying hemorrhagic uterine affections, ascribed to defective functioning of the thyroid and treated with thyroid extract; likewise 8 cases of nervous disturbance accompanying retarded development of the internal genitals. The benefit from thyroid treatment was constant and so marked that it can be explained only on the assumption that the neuralgias, vague pains and fatigue were due to excessive irritability of the nerve terminals which had gradually developed under the influence of protracted auto-

intoxication from lack of thyroid function. Such autointoxication may be the direct result of the thyroid deficiency, or merely promoted and increased by it; in either event thyroid treatment has a distinct causal efficacy. For the detection of such thyroid insufficiency, the author suggests that a preliminary blood examination be made to determine if there is a significant relative neutrophile leucopenia with relative lymphocytosis. The action of iodothyrin in these cases is that of a regulator. Spastic constipation is to be considered the direct opposite of diarrheas observed in hyperthyroidism. Even when of years' standing, it is amenable to treatment. Sehrt (Münchener medizinische Wochenschrift, February 24, 1914).

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Fatal Illness in Infants and Children.—In 13 infants from 2 to 4 months old, nearly all found dead in bed, and all apparently well developed and nourished, the lungs in 8 instances showed marked congestion, bronchitis, and bronchopneumonia. This was associated in most cases with hyperplasia, general or partial, of the thymolymphatic system. The author believes that these cases of sudden death in infants may therefore be described as cases of fulminant bronchitis and bronchopneumonia, associated with status lymphaticus. The same pathologic grouping was found, in all cases examined, in a very unusual series of fulminant bronchopneumonia in boys from 10 to 16 years old. The fulminant nature of the illness in both groups may have been due in some way to the status lymphaticus, the signs of which were unequivocally present in both groups. There is some evidence that fulminant types of other bacterial infections—scarlet fever and diphtheria—are also accompanied by thymolymphatic hyperplasia or status lymphaticus. In the two groups of fulminant pneumonia, thyroid hyperplasia in a marked degree was present in every case examined (18). This condition of the thyroid seemed to have existed for some time before death. The regular association of thyroid hyperplasia with thymolymphatic hyperplasia may also be a mark of the same abnormal constitution of diathesis. McNeal (Edinburgh Medical Journal, January, 1914).

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Malignant Tumors of the Thyroid.—The author reports a study of 33 cases. Nine of the 16 patients with epitheliomas and 2 of the 5 with sarcomas were males. The youngest patient was a boy of 13. No clinical distinction could be made between carcinoma and sarcoma of the thyroid, neither age of the patients, gross appearance of the tumors, nor the route followed by metastases furnishing any differential information. According to Askanazy, this similarity arises from the fact that both classes of tumors evolve metastases through the blood-stream whenever one of the ductless glands is involved, cancers of these being in close relation to the blood-vessels, whereas cancers of other glands give off their constituent cells into the lymphatics. Thyroid cancers and sarcomata at first develop slowly, a year or two elapsing before symptoms appear; then

there occurs sudden marked extension, with disturbances of speech, deglutition, and circulation, and rapid cachexia. Metastases in various organs are frequent; in but 1 of the author's cases were there metastases in the bones. In the 4 cases of pavement-celled carcinoma, supposed clinically to be primary growths, necropsy revealed a primary focus elsewhere. Xenia Wissmer-Kowarsky (Revue médicale de la Suisse Romande, January, 1914). * * *

Thyroid Treatment of Uterine Hemorrhage.—Attention called to the close connection between the hypophysis, thyroid, and genital organs. The connection between the thyroid and the ovaries seems to be particularly close, and the thyroid may be responsible for conditions in the ovaries which entail bleeding in the uterus. The characteristic behavior of the blood when the thyroid is functioning to excess or not enough may account for this. With hyperfunction, the blood is abnormally slow in coagulating; with deficient functioning it coagulates abnormally quickly. The author found in 55 cases of uterine hemorrhage without discoverable local cause that 38 of the patients had all the signs of pronounced hypofunction of the thyroid. On this basis he gave thyroid treatment and in every case marked benefit was apparent. Not only the hemorrhages, but the general health showed a decided change for the better. Complaints such as palpitation of the heart, headache, etc., were occasionally improved after the first few doses. Leucopenia disappears after a few weeks of medication. Hemorrhages cease or become normal even after medication has been discontinued, thus proving the causal relations of thyroid insufficiency and hemorrhagic metropathies. E. Sehrt (Münchener medizinische Wochenscrift, February 10, 1914).

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Observations on the Effects of Epinephrin.—The author believes that epinephrin, while often restoring a pulse previously too feeble to be detected, does so at the expense of injury to the heart. His observations were made on healthy normal adults and on several patients apparently needing the drug, which was given subcutaneously in doses of 3 to 5 minims of the usual 1 : 1000 solution. The observations were controlled by injections of similar amounts of normal saline solution. In 7 normal persons subjective symptoms noted after the epinephrin were so marked, that not 1 patient was willing to undergo any more observations. The symptoms complained of were chiefly breathlessness and a sensation of cold. The former was often extremely distressing, the latter so intense in 1 patient as to lead to a severe rigor. In normal persons, as well as in patients, there was usually blanching of the skin. Blood-pressure rose from 15 to 45 mm. in normal persons; the pulse rate from 15 to 52 beats per minute. The symptoms usually passed off within a comparatively short time. Malcolm Donaldson (British Medical Journal, February 28, 1914).

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Lack or Excess of Iodine as Factor in Thyroid Disease.—Myxedema, according to the author, is due to a lack of metabolized iodine, while

exophthalmic goiter is the result of an excess of non-metabolized iodine. The primary cause of myxedema is thus a deficiency of iodine in the food, while that of exophthalmic goiter is a functionally weak thyroid with a sufficiency or an excess of iodine in the food. Experience has already shown that cretinism, myxedema, and endemic goiter are favorably influenced by organic thyroid iodine or thyroid extract. On the other hand, iodine in any form, or food containing it is distinctly harmful in exophthalmic goiter, and also in ordinary goiter, not of the endemic type, but that which is often a preliminary phase of exophthalmic goiter. Endemic goiter can thus be effectively treated with iodine, but iodine is strictly contraindicated in the sporadic form occurring away from the mountains. Grumme (Mitteilungen aus den Grenzgebieten der Medizin und Chirurgie, xxvii, Nu. 14; Journal of the American Medical Association, May 23, 1914).

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Epinephrin Content of Adrenals after Various Anesthetics.—Report of experiments on dogs to determine the effect of ether and chloroform anesthesia on the epinephrin contents of the adrenals. The decrease after chloroform proved to be much greater than that after ether, and persisted for a long time, while after ether the adrenals became normal again in ten to twelve hours. When morphine was given before the chloroform, it seemed to delay the bad effects on the adrenals, but only so long as the morphine influence continued. After that the epinephrin contents was persistently lowered, as in the cases where morphine was not given. Morphine given before ether did not seem to make any special difference in the effect of the anesthetic. Thus, chloroform, is much the more toxic than ether in that it inhibits the tonic effect of epinephrin on the sympathetic nervous system. Delbet believes that most of the serious after-effects of chloroform anesthesia can be prevented by giving epinephrin. Oliva (Lyon chirurgical, January, 1914).

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The Stomach in Exophthalmic Goiter.—In a research of 24 patients with exophthalmic goiter, the author found achylia constant in all instances of the pronounced classic type of the disease. The achylia was marked from the very beginning of the disease. When even one of the classic triad of symptoms was lacking, however, the secretion of hydrochloric acid did not seem to be modified. The triad of symptoms was presented by 17 cases and achylia was the rule in this group. Wolpe ascribes it to the toxic action of the Basedow poison on the nerves of the stomach, but the author thinks the evidence speaks as much for a chronic gastritis as for a nervous achylia. In a recent case, a young woman entered the hospital for digestive disturbances, vomiting, achylia, and diarrhea. There were no signs of exophthalmic goiter, but during the month she was in the hospital exophthalmic goiter developed, gradually progressing since. Her stomach had given her trouble for five or six years. V. F. Moller (Hospitalstidende, January 28, 1914).

Thyroid Grafting.—Thyroid tissue appears to be particularly fitted for grafting. It frequently lives, grows, and functionates, and this method of treating myxedema and cachexia strumipriva is not to be overlooked. No benefit has been known to result from thyroid grafts, however, in tetany or cretinism. The author was unable to find in all the literature even 1 case in which the remote results were favorable enough to justify the assumption of any real efficacy from the thyroid-grafting operation. He reports the case of a woman who had a tumor develop in the thyroid region years after removal of a parenchymatous goiter. It was removed at the sixth year. Again a tumor developed in the region, this time in the scar and this tumor was removed eight years after the second. Each of the tumors had all the characteristics of thyroid tissue, and the author believes that each developed from a scrap of thyroid engrafted during the preceding operation. Paschoud (Lyon chirurgical, December, 1913).

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Pituitary Extract in Obstetrics.—Where the cervix is not over four fingers dilated, the author gives only 0.05 Gm. of pituitrin. He never uses more than 0.1 Gm. as an initial dose. If 0.2 or 0.4 Gm. be given and an extremely violent labor result, it is almost impossible to control the pains, even with chloroform. With cautious dosage the author has had no instances in which pituitrin brought about contractions of the uterus so powerful as to interfere with the placental circulation and cause deep asphyxiation of the child. In the induction of labor large doses—0.1 to 0.2 Gm.—may be given with perfect safety. It would seem that so much of the energy of the drug is used up in starting the labor that the pains induced are never very strong at the outset, the effect wearing off before stronger pains develop. Lindeman (American Journal of Obstetrics, February, 1914).

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Intravenous Injections of Hypophyseal Extract in the Treatment of Post-partum Hemorrhage.—A distinction is to be made between atony and hypotony of the uterus, the latter being a condition in which the organ can still react to stimulation. In such instances post-partum hemorrhage largely loses its seriousness on account of the ready reponse to intravenous injection of hypophyseal extract. The author reports 3 cases in which the hemorrhage was thus controlled and a permanent contraction of the uterus obtained. From 0.5 to 1 c.c. of hypophysin was used. The injection should be comparatively slow, occupying not less than half a minute, otherwise the patient may collapse, with slow, shallow breathing, and a small running pulse. This, however, does not appear to be serious, recovery occurring a few seconds later. Kreiss (Zentralblatt für Gynäkologie, January, 1914).

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Parathyroid Insufficiency and Thyroid Transplantation.—The thyroid and parathyroids are in chemical and physiological relation to each

other. In tetany the administration of calcium is less satisfactory than transplantation of the parathyroid bodies, while transplantation of the thyroid alone is superior in effect to either. In each of 2 cases of tetany the thyroid gland of a patient with Basedow's disease was transplanted into the abdominal tissues. This thyroid was removed without any part of the parathyroids. From the results obtained the author concludes that the chronic symptoms of parathyroid insufficiency are improved or disappear, at least in many cases, through the administration or transplantation of thyroid. Poggio (Rivista critica di clinica medica, December 6, 1913).

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Acromegaly Following Panhysterectomy.—At the age of 39, a woman had been operated for uterine fibromyosa and a tumor of the adnexa, both the latter and the uterus being removed. The menses accordingly ceased. About a year after the operation the hands and feet began to grow larger, the face broadened, the lower jaw became markedly prominent, and the body weight showed a considerable increase. There were no serious cerebral symptoms or visual disturbances. The development of acromegaly in this case was probably related to the cessation of the reproductive functions. K. Goldstein (Münchener medizinische Wochenschrift, April 8, 1913).

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Successful Epinephrin Treatment in Osteomalacia.—Report of a case of recurring osteomalacia noteworthy because of the continuation of the disease in spite of castration 11 years before, and the energetic and prompt healing action of epinephrin. After 2 injection series of 9 injections each, —0.5 c.c. at a time—the symptoms disappeared and the patient was able to resume his duties. The improvement had continued several months after the treatment ceased. Salis (Münchener medizinische Wochenschrift, November 18, 1913).

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Sensitiveness to Epinephrin in Dementia Precox.—Cases of dementia precox, especially the catatonic and hebephrenic forms, are not sensitive to injections of epinephrin, *i.e.*, the blood-pressure does not seem to be affected. Normal individuals, as well as those affected with other psychoses, react to the subcutaneous administration of epinephrin by a marked increase in blood-pressure. W. Schmidt (Münchener medizinische Wochenschrift, February 17, 1914).

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Comparative Action of Epinephrin and Histamine on the Heart and Blood-vessels.—Report of a comparative study of the action of epinephrin and histamine (betaimidazolylethylamine) on the heart and blood-vessels of fish and rabbits. It was found that the action of histamine is similar to that of epinephrine, except that the latter dilates the blood-vessels of the lungs, while the former contracts them. W. I. Berezin (Roussky Vratch, November 2, 1913).

Department on General Medicine

Original Article

THE TREATMENTS OF CROUPOUS OR LOBAR PNEUMONIA, IN PARTICULAR THAT INCLUDING A MILK DIET.*

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"Concurritur: horae
"Momento cita mors venit aut victoria laeta."—*Horace.*

THERE are six or more treatments for croupous or lobar pneumonia,—some old, some current, one a treatment of the future, and one new. The course of this murderous disease is so rapid that the outcome or end is manifest in a week. It is therefore the duty of the conscientious practitioner to visit the patient at least twice a day, to be active in his medication, and to have a trusty nurse or attendant constantly at the bedside. There is reason to believe that patients in pneumonia have sometimes starved to death.[1]

The several treatments above referred to may be described as follows: I. The future treatment, yet undiscovered, is that of an *antipneumonic serum* (antitoxin) or *vaccine.* With such an agent a lung inflammation will either be prevented or cut short in a day, and the patient recover from illness as quickly as after the antitoxin treatment of diphtheria.

II. The *expectant* treatment, without medicaments, based upon the knowledge or assumption that pneumonia is a brief disease, harmless to those of robust vitality and those neither too young nor too old to throw off the malady unaided. This method is mentioned by all writers on treatment. Here and there it is not favored or stated with approbation. Osler speaks of the appalling mortality of pneumonia, and Tyson calls it treacherous and uncertain at any age.

III. The old treatment of *blood letting,* with its accessories or substitutes of the *depressant* class. This is the antiphlogistic treatment of inflammation and fever. Wood's practice gives a clear and precise description of the method, once thought indispensable. He states that in the young and healthy recovery ensues under proper or unproper remedies or without any. Apparently salutary and essential measures are injurious and even fatal under some circumstances. In common pneumonia in vigorous sub-

* Read at a meeting of the Therapeutic Society of Washington, D. C., October 3, 1914.

[1] Dr. George B. Wood: A Treatise on the Practice of Medicine, 5th edition, 1858.

jects, the most efficient remedy is bleeding; 16 to 30 ounces. This is to be repeated when indicated. Purgatives are then necessary,—and likewise tartar emetic in small doses. Opium, ipecacuanha, and calomel, several times daily doses in pill form, are beneficial. Cups and leeches to the chest may follow or replace the venesections. A large emollient cataplasm may be needed, but renders the patient liable to take cold. Finally, if the disease proves obstinate, it is proper to resort to the mercurial impression till the gums are somewhat affected. Whilst the mercury is given, a blister 6 x 8 or 8 x 10 inches in size is to be applied to the chest. Expectorants are useful in the declining stage. For failing strength, ammonium carbonate and oil of turpentine in rather large doses are useful. In drunkards the accustomed amount of alcoholic stimulants is diminished. The best plan is to allow the stimulus and at the same time to bleed. There is little hope of cutting short the disease by depletion (bleeding) after four or five days. In the old and feeble, and in children, bleeding is not useful; for children leeching, for the old and feeble, cupping and leeching, are indicated.

The treatment of Rasori by tartar emetic was practised either with or without bleeding. A safe plan of employing this otherwise dangerous method was to give only ¼ grain to 2 grains (0.015 to 0.12 Gm.) of the drug every two to four fours. It required frequent visits to detect the proper moment at which to suspend the treatment, as serious and sudden exhaustion from vomiting and purging was liable to occur. Wood declared the tartar emetic treatment to be less manageable than the lancet, and less safe than the mercurial plan.

Among other remedies noted were veratrum viride, used in the United States with much success in miasmatic regions,—also lead acetate, hydrocyanic acid, digitalis, ammonium chloride; alkalies and emetics in the early stage, potassium iodide in the late. Chloroform inhalations, 60 drops every two or four hours, but not enough to produce unconsciousness, were advised.

The dietary at first consisted of mucilaginous and farinaceous decoctions and of dried fruits, together with orange and grape juices. More advanced cases were given tea, toasted bread, crackers, rice, Indian mush and after these, milk. In convalescence and earlier in cases with debility, broths, lighter meats, eggs, oysters, etc., were allowed.

Bleeding and its powerful adjuncts were given up, however, at about the end of Wood's time, after the good results and lessened mortality when such treatment was not practised had been noticed. J. Hughes Bennett did much in achieving this reform in English and American practice. In his work "The Restorative Treatment of Pneumonia," 3d edition, 1866, he condemned blood letting and the antiphlogistic treatment then in vogue. The conviction that removal of exudate was dependent upon vital processes of growth led him to an opposite method of treatment, viz., never to attempt to cut the disease short or to weaken the pulse and vital powers, but on the contrary to further the necessary changes which the exudate must undergo in order to be fully excreted from the economy. To this end, during the period of febrile excitement he contented himself with giving salines in

small doses with a view to diminishing the viscosity of the blood. At the commencement of the treatment he ordered as much beef tea, milk, and other nutrients as could be taken, and, as soon as the pulse became soft, solid food and from 4 to 8 ounces of wine daily. As the period of crisis approached he gave a diuretic containing 30 minims (2 c.c.) spirit of nitrous ether and sometimes 10 minims (0.6 c.c.) of colchicum wine three times daily, to favor excretion of urates. If crisis occurred by sweat or stool he took care not to check it in any way. He did not consider that the salines and diuretics did more than to assist the natural progress of the disease. The essential part of the treatment consisted in the rest, nourishment and support given to the body throughout.

In our time there remains of the heroic antiphlogistic system venesection, done once in a practitioner's life, opium, and morphine.

IV. A more modern treatment is that of *hydrotherapy*, consisting of the use of the cold or tepid bath, a cold wet compress and pack, and the ice bag. Any physician who has worked against pneumonia with this method will have been impressed by its efficiency in ameliorating the acutest and most urgent symptoms and often in bringing about a quick cure in the presence of a condition of alarming gravity. Its most brilliant effects are seen in infants and children.

An offshoot of hydrotherapy is the *open air* exposure of the pneumonic patient at a temperature lower than that found in the bed-chamber, as in tuberculosis. One assumes that the open air is of greater purity than that of a habitation. Another beneficial influence is exerted from the fact that cold air, like cold water, abstracts heat from the body and reduces febrile temperature.

The effects of cold air—aërotherapy—are very satisfactory, but neither this treatment nor hydrotherapy can become permanently established as the best. As is the case with the cold bath treatment of typhoid fever, hydrotherapy and aërotherapy in pneumonia are not suitable for private practice, and should not be applied where the practitioner has at his command another treatment of equal or superior merit. The susceptibilities of human beings in connubial and family relationships cannot be violated by the infliction of pain, real or fancied. Hence, hydrotherapy, like aërotherapy, is not suitable as a routine procedure, and is in favor chiefly in hospitals. Of the open air treatment G. W. Norris[2] states that the results are excellent, but that it is necessary to educate an unwilling public if the treatment is to be actually carried out.

V. The *specific* treatment with drugs includes the administration of quinine in large doses, of digitalis in like quantity, and of potassium iodide. The iodide treatment is indispensable in every pneumonic case with secondary, tertiary, or hereditary syphilis. Creosote, and bichloride of mercury and sulphur are other agents of this class. With quinine and digitalis the writer has had no experience; the other remedies he considers of value.

[2] G. W. Norris: "Croupous Pneumonia," in Osler's Modern Medicine, 1913, 2d ed., vol. i.

VI. The *symptomatic* treatment is that which is chiefly in use. Of the drugs which mainly constitute it, almost all have had both advocates and opponents. The former have favored their use as necessary and helpful, the latter combated it as unnecessary, harmful or dangerous to life.

For pleuritic pain, an ice-bag, a warm compress, a flaxseed meal poultice, mustard to the side, dry cups, leeches, wet cups in the strong, and a hypodermic injection of morphine are recommended. Other measures advocated are: quinine, digitalis, antipyrin, acetanilide, acetphenetidin, expectorants, ipecacuanha, senega, apomorphine, and the free use of fluids.

For heart weakness, an ice-bag, digitalis, strophanthus, caffeine; injections of camphor in oil and ether, and likewise of strychnine; nitrites, and nitroglycerin are frequently ordered. In drunkards, alcohol is given; in delirium tremens, tepid baths, cold water to the head, strychnine hypodermically, morphine likewise, paraldehyde and chloral hydrate in small dosage.

In the presence of cough, codeine, or morphine in small doses, as well as alkalies, are used. Dyspnea from weak heart is relieved by bleeding, strychnine, digitalis, and inhalation of ethyl iodide or oxygen. The latter may be inhaled also for venous congestion and sleeplessness. By some, to be sure, oxygen is held to be worthless, and by still others, harmful. For sleeplessness with cough, Dover's powder is considered appropriate.

Laxatives are useful, and likewise diuretics. The best diuretic, according to Norris, is water, 4 to 8 ounces (120 to 240 c.c.) of which are to be given hourly. Toxemia is combated by hydro- and aëro- therapy, substantial feeding and moderate stimulation, enteroclysis, venesection, and intravenous injection of saline solution.

According to this writer, alcohol is contraindicated in pneumonia because it lessens the opsonic power of the blood, diminishes glycogen in the liver, lowers blood-pressure, causes venous congestion, and decreases the work of the heart; it acts as a transient stimulant, then as a depressant. In drunkards, immediate withdrawal is advised. Death where the heart is healthy is due to vasomotor paralysis and great dilatation of the splanchnic vessels. There is a fall of blood-pressure, cold sweating, tympanites, delirium, and arrhythmia. Here, says Norris, the proper treatment is fresh air, cold sponging, mustard foot bath, saline transfusion, and epinephrin intravenously; strychnine, atropine, and caffeine are also considered useful. Digitalis is indicated only in cardiac dilatation, and the nitrites are contraindicated. Where there is heart weakness there result cyanosis, venous distention, rapid pulse, enlargement of the heart to right, a weak second pulmonic sound, and a muffling of the first heart sound. The liver and kidneys becoming congested and the lungs edematous, then, still quoting Norris, we should bleed,—8 to 24 ounces; digitalis and strophanthus must be used by vein and through the skin, but not too late. The calcium salts, according to Brunton, act directly as a stimulant to the heart. They also neutralize the toxins of albumose and peptone nature and counterbalance the sodium chloride retention in the economy found in this disease. The application of a flaxseed meal poultice to the chest in pneumonias is a domestic treatment that has

never been in favor in textbooks. Sir William Osler alone says that in the pain of pleuropneumonia in children, hot poultices are preferable to other methods of treatment.

VII. The treatment with a pure *milk diet.* In examining a number of medical works of various dates it was noted that the dietetic treatment of croupous pneumonia has been neither cultivated nor systematized. Every second or third writer declares milk to be the best food, but does not describe its proper use, and invariably there are added other articles of diet that are objectionable or harmful.

The best and only diet in pneumonia, in my estimation, is milk given in a regulated manner. The results of using it have been so good that I consider the milk treatment of croupous pneumonia as useful and as necessary as it is in typhoid fever. With a pure milk diet properly given in this affection the diseased organism is aided in the following ways: The cough tends to become moist, the respirations deeper and less frequent. The heart contractions are strengthened, the pulse becoming fuller and slower. The febrile temperature is reduced 1 or 2 degrees. The bowels are often regulated. Sleep and nightly quiet replace sleeplessness, restlessness, and delirium. Diuresis is markedly increased. The color of the urine is lightened and its urates lessened, and it does not grow turbid on cooling. Toxemia, the chief peril to life according to some, is most rationally and expeditiously combated. Hence it may be held that a complete milk diet is the basis of any treatment for croupous pneumonia; that all other foods are unnecessary, and that water drinking or water introduced into the circulation in any other manner is needless.

The success of the milk diet depends, in the first place, on the daily quantity taken. The amount must be a standard or measure for the individual. This, for the adult, is from 4 to 6 quarts. With less than 4 quarts results are not apparent, for to replace or displace the whole blood volume in a human subject requires the daily absorption of the quantity of milk mentioned. A half-pint should be given every hour, or 1 pint every two or three hours. It must be given at night. It should be taken quickly, not sipped. Sipping milk is laborious, and where there is any dyspnea it can be observed that the shortness of breath is greater thereafter.

While the use of a milk diet in disease may be of a simplicity surpassed only in the case of absolute fasting, it may, on the other hand, fail through any one of many practical difficulties or objections.

In medical practice mankind can be divided into two classes: First, that of milk drinkers, who take milk readily in any amount,—and this is true of all periods of adult life. This class is easier to cure in any form of disease than the second, which holds milk drinking in aversion. Here one encounters volleys of objections from both sexes: It is not liked, it cannot be taken, too much was given in some previous illness, it causes biliousness, it constipates, it causes vomiting, it causes diarrhea, all city milk is unclean, the milk on a farm is the only kind to drink, death is preferable, and the like objections, complaints, and opposition, with or without rational cause

or defense. In this class of people the milk diet is mostly unsuccessful and even where the medical attendance has been good, where milk finally has been unwillingly and ungraciously taken by the patient, and where the outcome is a prompt and complete cure, gratitude is never in such a case a part of the practitioner's reward.

In some instances the pure milk diet must be altered by dilution of the milk with barley or rice water. A thick gelatinous liquid is prepared by boiling and stirring for ten or fifteen minutes 1 or 2 teaspoonfuls of barley or rice flour in a pint of water. To this, 1 or 2 volumes of scalded milk are added. Eight to 12 pints is the daily quantity required.

Cows' milk cannot be administered to every pneumonic, however willing he may be to make the attempt. Cows' milk may induce the tympanites so prone to ensue in a grave case, and frequent enough in fatal ones. Where, in the course of milk diet treatment, this complication appears and it cannot be overcome in a few hours by castor oil or by oil of turpentine enemata, barley or rice water must be given instead. Cows' milk in some subjects produces very active purgation, so marked that at the first complaint of this by the patient, the same change in the feeding is necessary. Where, in a case placed upon a milk diet, there is heart palpitation, gastric pain and distress, restlessness, and much belching of gas, the condition is a nervous dyspepsia or indigestion from enfeebled circulation due to more or less obvious organic heart weakness, and the immediate replacement of pure milk with that diluted as already described is necessary.

In rare but undoubted cases, milk causes vomiting, either as soon as taken or else after longer intervals, once or twice a day, in large amounts, consisting of liquid or coagula, or both. The first accident is an idiosyncrasy, the other evidence of an overloaded, distended stomach,—one not digesting. Either occurrence necessitates the stopping of this food. If, with a reckless or inexperienced hand, the pure milk is continued in the second instance, acute gastric dilatation may occur—an accident either very grave or fatal.

The treatment of pneumonia with a pure milk diet is not new as regards the food selected, but the above presentation is new in that there are stated the principles of its use, its effects on the disease, the essential daily amount, the objections to it, its occasional dangers, its proper administration at the bedside, and its permanent necessity whatever other treatment may be used or added. The whole subject has been offered and considered in atonement for the startling, chilling words of an old master in therapeutics in the first paragraph of this paper.

Cyclopedia of Current General Literature

Accessory Sinus Suppuration, Vaccine Treatment in.—Within the last few months the author has instituted treatment of sinus suppuration with stock vaccines. The number of cases treated was 20, grouped as follows: Frontal, acute, 3; chronic, 4, ethmoidal, chronic, 8; maxillary, acute, 3; chronic, 2. The number of injections varied from 2 to 12. The initial quantity began at ½ c.c., and at fourth injection the amount was 1 c.c. A Sherman vaccine of the following composition was invariably used: Friedländer bacillus 300,000,000; micrococcus catarrhalis, 200,000,000; streptococcus, 60,000,000; pneumococcus, 80,000,000; staphylococcus aureus and albus, of each, 200,000,000. In the acute cases 2 or 3 injections suffices, while the chronic cases always went to the full number.

The results within two days were often so good as to delude one with false hopes. The local reaction where the injection was made was always marked from the first application, appearing as a greater or lesser soreness and stiffness in that portion of the arm or leg. Subsequent injections provoked this reaction less and less. The sinus condition was usually better, although in the chronic cases the discharge was often worse and occasionally unaffected. The 2 or 3 subsequent injections seemed to bring continual improvement, and while this was real in the acute cases, in the chronic it was ofttimes but apparent. Up to the time of writing none of the chronic cases had been absolutely cured, though many showed great improvement.

The end results were as follows: Frontal sinus: Cured, 3; benefited, 2; not improved, 2. Maxillary sinus: cured 2; benefited (acute), 1; (chronic), 2. Ethmoid cells: cured, 1; benefited, 3; not improved, 4. Total cured, 6; benefited, 8; not improved, 6. Percentages of cures in acute cases, 5 out of 6, or 86 per cent. Percentage of cures in chronic cases, 1 out of 14, or 7 per cent. Percentage benefited in chronic cases, 8 out of 20, or 40 per cent. Percentage of absolute failures in chronic cases, 6 out of 20, or 30 per cent.

Conclusions.—The treatment is of great value in acute cases which are slow in healing and tend to become chronic. It should be a routine procedure in all chronic conditions that show a tendency to be of the latent type. It should be instituted after radical operations. It offers the most hope in old operated cases which have not been entirely cured or have become reinfected. Ross Hall Skillern (Laryngoscope, July, 1914).

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Bronchitis, Treatment of Recurrent Sibilant.—Recurrent rhinitis and recurrent sibilant bronchitis, which are sometimes associated with rather severe asthmatic attacks and almost always with a severe paroxysmal cough, are very commonly caused by some kind of food intoxication. They may be in most instances almost or quite relieved by dietetic treatment. This symptom group occurs not infrequently in children who have a pre-

disposition to migraine, recurrent vomiting, and urticaria.

Dietetic Treatment of the Attack.—During the attack sweets, butter fats, eggs and raw fruits are especially to be avoided. Strawberries, rhubarb, tomatoes, salads, shell-fish, tea, coffee, pastry, gravies, cream, codliver oil and alcohol are to be excluded from the diet. If it be necessary to sweeten the cereals and cooked fruits which the child eats, saccharin is to be used instead of sugar, and while the patient is not to have butter, skimmed milk may be allowed. Eggs in every form, even in cooked foods, are to be carefully eliminated from the diet, and among the raw fruits oranges are to be especially avoided.

The following foods may be allowed: Beef, mutton, fowl, and fish in moderation, cereals, bread, all vegetables not above proscribed, cooked fruits, skimmed milk and thick soups.

Interval Dietetic Treatment.—About two months after the patient has recovered from the attack the above diet may be carefully modified by adding one egg a day; then, perhaps two weeks later, milk containing 4 per cent. fat may be substituted for skimmed milk. Some few weeks later, all raw fruits, oranges excepted, may be added to the diet. Some weeks later, small quantities of sugar may be used for sweetening cereals and stewed fruits. After five or six months the child may return to his original diet with the exception that he must eat sparingly of sweets and must eat nothing between meals. If the symptom group returns on the addition of any article of diet that particular food is to be permanently excluded from the diet.

Hygienic Treatment.—During the attack the patient is to have all the outdoor air he can get with as little exercise as possible; this can be obtained on sleeping porches and with wide-open windows. As he recovers from the attack, exercise in the open air is advisable. School children should have all the air possible at night.

Medical Treatment of the Attack.—During the attack, constipation should be relieved by milk of magnesia or calcined magnesia. Magnesium sulphate may be used in small doses in older children. Alkalies in the form of sodium bicarbonate, potassium bicarbonate, or potassium citrate should be given in fair sized doses three or four times a day. Sodium bicarbonate, *e.g.*, may be given in 5-grain (0.3 Gm.) capsules three or four times a day, or the same size dose of potassium citrate may be given in solution. In younger children who object to the taste of sodium bicarbonate, the author commonly directs the mother to distribute through the child's food a teaspoonful of this salt each day. Tincture of belladonna should be given for a short time in 2- to 4- minim (0.12 to 0.25 c.c.) doses three times a day.

Interval Medical Treatment.—If constipation cannot be controlled by diet, cascara or other palatable laxative should be used as indicated. The belladonna should be discontinued, but sodium bicarbonate should be given for six to eight weeks in moderate doses once or twice a day.

The above treatment, if faithfully carried out, will in almost every instance control the syndromes above described. This treatment is almost or quite as effective in the treatment

of migraine and recurrent vomiting in children. . In the adult and older child, the author uses the following formula:—

℞ Sodii sulphatis (dry) gr. xxx (2 Gm.).
Sodii salicylatis, gr x (0.6 Gm.).
Magnesii sulphatis, gr. j (3.3 Gm.).
Lithia benzoatis, gr. v (0.3 Gm.).
Tinct. nucis vomicæ, gtt. iij.
Aquæ destillatæ, q. s. ad f℥iv (160 c.c.).

The solution is put up in siphons and charged with carbonic acid, and the patient is directed to take, half an hour before breakfast, a sufficient quantity to produce at least one bowel movement during the morning. This prescription is of great value in the preventive treatment of migraine. B. K. Rachford (Archives of Pediatrics, July, 1914).

* * *

Cancer of the Esophagus, Early Symptomatology of.—It is usually considered that dysphagia is the earliest symptom in this condition. Such is often the case, but it is not generally appreciated that the dysphagia may be at first only temporary. The dysphagia may entirely disappear for a considerable length of time before it becomes permanent. In 4 of Cabot's 20 cases there was no dysphagia without the disease. In some patients the dysphagia at first may amount to a brief choking sensation only. It is not always the first symptom. Instead of it there may be some definite new abnormal sensations referable to the throat and interior of the thorax or region beneath the xiphoid cartilage. One patient referred to the author had complained of a sticking sensation in the throat and supposed that she had swallowed a tooth-brush bristle. Upon being assured that there was nothing the matter, the patient returned after four months, with increased trouble. In other patients the new abnormal sensation may be described as a sense of pressure, or a dull, constantly recurring discomfort, or in still others, an actual pain. Patients complaining of such symptoms, which are possibly referable to the esophagus or stomach, should not be discharged as neurasthenics, but urged to have an esophagoscopic examination. In some patients the first symptom was cough, an increase in the amount of mucus in the throat, or anorexia.

A review of the author's data makes it clear that an earlier diagnosis was easily possible in all the patients. In a small minority only was the diagnosis made before three to four months after the patient had symptoms. When one considers that the total duration of cancer of the esophagus is probably about two years, a delay of three or four months is of considerable proportion. H. H. Janeway (American Journal of the Medical Sciences, April, 1914).

* * *

Cerebral Hemorrhage, Diagnosis of.—Marked hyperemia and a tendency to congestive seborrhea on the side of the face and scalp corresponding to the developing hemorrhage in the brain were detected by the author. The hair on that side also stands up, and it is impossible to make it lie smooth. The hyperemia in one side of the face may pass into pallor and a distressed expression, and there may be sensations of cardiac oppression. These findings may persist for hours before there are other signs of the hemorrhage. The spastic contraction of the muscles causing the

hair to "stand up on end" is a grave sign; the author found it only in the cases which had an unfavorable outcome. It sometimes preceded the cerebral hemorrhage by several hours. It is possible, he suggests, that prompt and copious venesection might ward off the cerebral hemorrhage at the time of this spastic contracture. Mendl (Münchener medizinische Wochenschrift, April 7, 1914).

* * *

Common Colds, Treatment of.— Rhinitis is divided by the author, for purposes of treatment, into 3 stages: 1. Dryness or pricking of nose and throat accompanied by chilliness. The mucosæ are quite hyperemic, dry, and free from secretions. Headache, with fullness between the eyes. The temperature ranges from 99° to 104° F. *Treatment:* Hot baths, purges (calomel and salts; salts especially to deplete the system of water); rest in bed; ice-bag to forehead; hot-water bag to feet; internally 10 grains of Dover's powder and hot lemonade to promote sweating; in the nose, locally, epinephrin, 1:5000.

2. Profuse watery discharge; throat sore; headache less. If nose is wide, fullness between eyes diminishes, or if narrow, fullness increases. *Treatment:* Atropine internally until dryness of nose and throat develops; hot alkaline nasal douches; cocaine hydrochloride daily, 1 per cent. solution applied (never prescribing cocaine for patients to use at home, and when using it, always having aromatic spirit of ammonia handy).

3. Mucopurulent discharge, a lowered temperature, pulse less, bounding headache diminishing unless sinuses are involved, whereupon headache pressure symptoms increase, accompanied by dizziness.. *Treatment:* Hot alkaline nasal douches, cocaine hydrochloride to nares, oil sprays, strychnine sulphate, $\frac{1}{100}$ grain, three times a day, egg and milk, increased exercise, alcohol rubs twice daily; hexamethylenamine, 5 grains internally, three times a day.

As suspicious indications of sinus involvement the author emphasizes the following: 1. Any coryza which does not tend to early recovery. 2. Any constantly recurring coryza with obstruction in nares. 3. Any unilateral discharge. 4. Headaches which are not relieved by glasses or purges. *Treatment:* Of remedies cocaine, 1 to 2 per cent. is the most efficient; epinephrin comes next, 1:5000; and 40 per cent. ichthyol in wool fat may be used locally to deplete the swollen mucosa. Internally, 5-grain Dover powders every three hours; salts as cathartics; ice-bag to sinus; hot baths and hot nasal irrigations. Epinephrin gives more after irritation, causing more sneezing and swelling of the mucosa than cocaine. Many disagreeable symptoms are caused by cocaine, and great care should be exercised in applying it; if one should happen to use too much cocaine, the patient should be given aromatic spirits of ammonia. People will faint from a 1 per cent. solution as easily as from a 20 per cent. The drug seems to affect them in two ways. In the nares the irritation of rubbing it on the turbinates has in the author's experience, many times caused patients to fall over. Or, an excess runs down the throat and causes a choking sensation, which alarms the patient.

After thorough cocainization, the

author believes in douching the nose with warm saline solutions. The good results of this far outweigh the bad. The author states that he has aborted many attacks of acute otitis with warm nasal irrigation and an ice-bag to the ear.

In addition to the cocainization of the natural sinus orifices, where required, the author advises rest in bed with ice-bags constantly applied to the face. Calomel and saline purges help materially. If the patient is not markedly improved in ten days to two weeks, one may be sure that there is a more serious condition, and the case is brought to the operative stage. N. P. Stauffer (New York Medical Journal, March 28, 1914).

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Deep Skin Grafts.—The writer calls attention to the value of very small skin grafts, especially if they contain more true skin than the superficial grafts advocated by Reverdin. The deeper grafts give a more stable healing, with a final result more like the normal skin, than when the thinner grafts are used. They may be placed on fresh wounds, but are usually applied to granulating surfaces. The granulations must be clean, firm, rose-pink, and not exuberant. Careful attention to this point is necessary. On the day preceding the operation, all secretions and crusts are removed. The granulations are painted with tincture of iodine and dressed either with balsam of Peru and castor oil, 1:3, or with moist boric or salt gauze. The dressings are removed at the time of operation, and the wound washed carefully, without causing bleeding, with sponges dipped in warm salt solution. The surface is dried thoroughly and a pad of dry gauze is placed over the wound; it is pressed down firmly on the granulations, and is only removed when the operator is ready to apply the grafts. The surface to be grafted must be thoroughly dry, as the grafts adhere better and are less likely to be subsequently displaced. Autografts are more successful than isografts. The region from which the grafts are taken has little effect on the success or failure of the grafts. A large number of these grafts may be taken from a comparatively small area, so that it is possible to use small grafts on extensive wounds without any severe tax on an ill patient. Before removing the grafts the skin is shaved and washed with green soap and water, rinsed with sterile water and sponged with ether, followed with alcohol and finally rinsed with normal salt solution, and dried. For anesthesia, the author uses an injection of 1 per cent. quinine and urea hydrochloride solution or 0.5 per cent. solution of novocaine, with a small amount of epinephrin. The grafts are obtained most simply by picking up a bit of the epidermis with a straight intestinal needle held in an artery clamp. A little cone is thus formed and the base of the cone is cut through by depressing the blade of the knife. The graft, still on the needle, is transferred to the wound with raw surface downward. The grafts are placed in rows, not more than 5 mm. being left between the grafts. The protective is pressed down firmly over the grafts with a gauze pledget, and the edges of the grafts will uncurl and spread out evenly on the wound. The procedure is continued until the whole surface of the wound is covered. The dress-

ings should be removed on the second or third day, and any wound secretions mopped up or washed off with a gentle irrigation of normal salt solution. Some bland ointment should then be applied. J. S. Davis (Journal of the American Medical Association, September 19, 1914).

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Eye and Ear, Phagocytic Treatment of Diseases of.—Report of a case suggesting that the ordinary treatments of ocular inflammatory affections can be strongly reinforced by the phagocytic action of nuclein. This case (severe keratitis) was but one of many in which the author found nuclein of decided benefit. If given in time it aborts styes, boils, acne pustules, acute otitis, coryza, influenza, enlarged glands, gingivitis, incipient dental abscess, etc. Even when suppuration has occurred it frequently happens that, under nuclein, the inflammation subsides and the pus absorbs. The product has a beneficial action on keratitis, iritis, dacrocystitis, and, in a lesser degree, on conjunctivitis and chronic middle-ear disease.

Other observers have recorded its effect in improving general nutrition and increasing resistance to pathogenic germs. The author is convinced that there is much more rapid healing of operation wounds and less danger of sepsis if nuclein be administered.

A more powerful preparation for phagogenic treatment is the mycolysin of Doyen, of Paris. This is stated by him to be "a preparation of phagogenic colloids extracted from a certain number of natural ferments," and has an even more powerful effect than nuclein in producing increased phagocytosis. These remedies, nuclein and mycolysin, deserve more extended use. J. P. Henry (Lancet, May 30, 1914).

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Hypotension with Definite Symptomatology.—The author discusses cases of low blood-pressure occurring in the absence of any demonstrable organic lesion. These, in his experience, have been young adult or middle aged patients who presented certain symptoms in common, and were markedly improved by practically the same therapeutic measures. The chief symptoms are headache, vertigo, and mental and physical tire.

The author is able to offer no explanation of the hypotension.

The treatment given these patients is essentially as follows: They are instructed to go to bed at a reasonable hour and to rise at a certain time each morning. Immediately on rising they are to perform a series of systematic exercises, such as standing erect with the arms extended above the head, and stooping forward to try to touch the floor with the fingertips. Lying at full length on the floor or bed upon the back, with the hands under the hips, and bringing each leg alternately and slowly to a position at right angles to the body, etc. Every morning at least ten minutes must be devoted to this task. The exercises should at first be performed slowly, with intermissions of a few seconds for rest and deep breathing. As the muscles become accustomed to the work they may be increased in rapidity and duration, but never to the extent of producing exhaustion or prolonged breathlessness.

Following the exercises, a shower-bath, first hot and then as cold as can well be borne, should be taken; or if there are no such appointments, the patient should stand erect in the tub in which a little hot water remains, and sponge the entire body quickly with cold water or salt water. This should be immediately followed by a brisk rub with a coarse towel, continued long enough to produce redness of the skin. After this, rest in the recumbent position, well covered up, for five or ten minutes before dressing, is required.

Definite rules are given as to the number of hours work to be done a day, and a certain amount of relaxation is insisted upon.

In all of these cases ascending doses of tincture of nux vomica were prescribed, beginning with 15 drops three times a day after meals and increasing 3 drops a day, until the first sign of the physiological action appears, when the dose is dropped 5 drops and maintained there for a period of two to five days, after which the number of drops is decreased 15 drops a day, down to the original 15 drops, three times a day, which dose is maintained for a week before the nux vomica is discontinued. One patient took 75 drops three times a day without experiencing any physiologic effect.

For coexisting constipation Fernet's special exercises were ordered. Small rises of pressure in these cases bring about marked improvement of the condition. E. H. Goodman (American Journal of the Medical Sciences, April, 1914).

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Internal Piles, Prevention of Pain After Operation for.—The relief of pain by opium and morphine, while preferable to allowing the patient to suffer, is not satisfactory. To be of real use the drug must be given at frequent intervals for several days. Even then it makes the patient feel ill and uncomfortable, and often renders him quite miserable. If a wound is made with no bruising or tearing of the tissues, under aseptic conditions, through clean tissues, and is kept aseptic and at rest, pain, except of a very slight and transient character, does not result. The anal region is no exception to this rule. By a slight alteration of the technique of the operation the conditions usually obtained for other operations can be secured when operating for piles. Very careful attention to the details of aseptic technique must be observed. The patient must be so prepared that the rectum is quite empty and will remain so for some days. This is essential. The rectum and the whole of the field of operation must be thoroughly washed out with soap and water, and afterward with a suitable antiseptic. The sphincter should not be stretched or damaged in any way, and the patient must therefore be thoroughly and deeply anesthetized. The operation must be carried out with as little damage to the tissues as possible. Pressure forceps should not be applied to tissues which are not going to be removed; the mucous membrane or skin at the anal margin must not be included in ligatures, and the number of ligatures applied for the control of hemorrhage must be reduced to the smallest possible number. After the operation the wound must be bathed with some suitable antiseptic, the best being 1:40 phenol. Lastly, some form of

dressing must be applied which will prevent infection of the wound. For this purpose the author has found sterilized vaselin to be the best, and the lower part of the rectum may be filled with this.

For the last ten years he has been operating for piles on these lines, using the ligature operation in all but a few special cases, and has found that post-operative pain is not more severe or frequent than after operations for hernia or varicose veins. Morphia is not required except as a hypnotic or to prevent the bowels from acting, and in the great majority of cases there is no pain of any consequence after the operation.

Pain when the bowels act for the first time is avoidable with care and good nursing. There is nothing to be gained by keeping the bowels confined for more than three or four days, as by that time the wounds in the anal canal have commenced to granulate and infection will not result in pain. After this a mild aperient daily is all that is necessary. The author never allows the interior of the bowel to be interfered with in any way until all the ligatures have separated, except by the administration of a small injection of oil into the bowel daily to assist smooth action and protect the surface of the wounds. Ordinary diet, somewhat diminished in amount, is allowed after operation.

Of the last 200 cases operated, only 28 (14 per cent.) complained of pain after the operation sufficiently severe to require an injection of morphine; and in only 8 cases (4 per cent.) was the pain bad enough to require more than one injection of morphine. In all the remaining cases pain was altogether absent or was relieved by 10 grains of aspirin, or by some simple measure such as a hot-water bottle.

These figures refer only to the ligature operation, cases treated by tie cautery or Whitehead's operation having been excluded. P. Lockhart Mummery (Lancet, May 2, 1914).

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Liquid Paraffin in Enteric Fever with Constipation.—It is the exception in Egypt, to see cases of typhoid fever with diarrhea. Constipation is the rule, and it is often very difficult to manage. The author formerly treated it by daily enemata, preceded if necessary by an injection of olive oil; in most cases this was successful, but occasionally the result was not satisfactory. In 1912 one of his patients was so constipated during the beginning of her convalescence that he determined to use paraffin, with excellent effect; after that he commenced to use it throughout the illness, and such now is his routine. In cases in which, during former acute illnesses, enemata have acted with the greatest difficulty, paraffin, if an enema is necessary, acts easily and painlessly, and both patients and nurses have been more than satisfied with the result. It seems absolutely free from risk and, further, it probably acts as an emollient dressing to the typhoid ulcers. The only disadvantage seen from its use during typhoid fever was occasionally slight leakage per anum. The author gives the drug in the dose of ½ ounce (15 Gm.) at night, and, if this be not sufficient, in the morning as well; it is best taken floated on the top of a little soda water. With such dosage enemata are often unnecessary,

though the author still often orders the bowel to be washed out so as to remove as much toxic material as possible. L. P. Phillips (Lancet, July 25, 1914).

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Nephritis, Serum Therapy in.—Experience has proven, according to the author, the utility of treatment with serum from the renal vein in nephritis. Such serum relieves disturbances arising from autointoxication and suppression of the renal excretion. The ammoniacal odor of the breath ceases, the dyspnea is relieved, and sometimes the phenomena of congestion, bronchopneumonia, and even hydrothorax rapidly diminished. The serum lowers blood-pressure, and sometimes checks hemorrhages. The serous effusions often improve, and the gastrointestinal disturbances yield promptly to serum therapy. The urine is considerably increased in amount—from 1 pint to 3 or 4 quarts in twenty-four hours—and the albumin rapidly diminishes. Most frequently there is a large excretion of urea, without any change in the chlorides. In other cases, the urea does not vary, and there is hyperchlorides. In other cases, the urea diminishes rapidly.

The indications for renal serum therapy are the following: 1. Uremia from abrupt suppression of the renal function (as in scarlatina or pneumonia), or from a violent congestive exacerbation in the course of a chronic nephritis, or from obliteration of a ureter. 2. Toxemia developing during the course of a chronic nephritis, because of indiscretions of diet, or because of a sudden hypertension, or an attack of renal congestion. 3. Acute nephritis arising from exposure and infections, without true uremic symptoms, but with headaches, dyspnea, and diminished urine flow. 4. Renal disorder in heart disease. 5. Albuminuria of pregnancy and eclampsia. Teissier and Thévenot (Progrès médical; New Orleans Medical and Surgical Journal, June, 1914).

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Potassium and Sodium Iodides and Iodine, Action of, on the Heart and Blood-vessels.—The author reports a study of the activity of these drugs based upon perfusion of the blood-vessels and hearts of cold- and warm-blooded animals, observation of the behavior of excited arterial rings and strips, and blood-pressure experiments. The iodine ion proved to be a powerful stimulant to both heart and vessels in experiments on isolated organs. Their stimulating effect is greatly inhibited in the intact animal, however, by their chemical combination with the proteids of the blood. Whether the resulting compound is a stable one, or whether it is loose, slowly setting iodine free, remains an open question; if iodine is set free a stimulating effect is to be expected. Sodium iodide possesses no depressing property, for the sodium ion is a vasoconstrictor and cardiac stimulant, and the iodine ion, in so far as it is free to act, has the same action. Potassium iodide, on the other hand, clearly shows the depressing effect of the potassium ion on the heart and vessels, especially of mammals, both on isolated organs and in the living animals. It is therefore not immaterial which of the iodides is chosen for the purpose of depressing the circulation, *e.g.*, in a case of aneurism. So far as experi-

mental evidence goes, the iodides possess no special virtue of lowering blood-pressure; the effect is really due entirely to the potassium, and could be produced even more efficiently with other potassium salts. D. I. Macht (Bulletin of the Johns Hopkins Hospital, September, 1914).

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Septic Processes, Alkaline Treatment of.—A deficiency of alkali is responsible for defective production of antibodies. By administering alkalies the author is convinced that he has tided certain patients past the danger stage who would have been lost without it. He mixed 10 or 20 Gm. of sodium bicarbonate in a bottle of seltzer water and had the patient drink this during the day. Children took half this amount. Some of the patients took it for weeks without disturbances; a healthy stomach rebels at these large doses of an alkali. Sometimes pain in the stomach compelled suspension for a day or so, but diarrhea was regarded as useful unless too profuse. The alkali can be given by protoclysis or by intravenous infusion. The cases reported were of severe septic processes, osteomyelitis, scarlatinal nephritis with abscess, etc., and all recovered. Vorschutz (Deutsche Zeitschrift für Chirurgie, cxxvii, Nu. 5-6, 1914).

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Sodium Salicylate, Rectal Administration of.—The author recommends the intrarectal administration of sodium salicylate in refractory cases of acute and subacute rheumatism While salicylate acid therapy is to be regarded as a specific in rheumatism, there are many failures. No doubt there may be foci of reinfection in which surgical measures may be required, but in very many cases insufficient dosage is the cause—due most often, perhaps, to intolerance of the drug by the mouth. The intrarectal method has for its justification its ability to answer the requirements of any therapeutic agency: (1) ease of administration; (2) ready absorption of the drug; (3) minimum of untoward effects; (4) ability to administer large quantities of the preparation, as is to be advocated in bactericidal therapy; (5) removal of the residue of the drug from the bowel by subsequent enema, if the dosage should ever prove excessive. The results are more prompt than from any other measure. The author has used the method in 125 cases. The mode of administration is as follows: A cleansing soapsuds enema is given and immediately followed, after it acts, by the salicylate enema, given with the Davidson syringe and a rectal tube inserted 6 to 8 inches. The dose varies with the size and sex of the patient and the severity of the case. The first adult dose in men is usually from 8 to 10 Gm., in women 6 Gm., the latter being more susceptible to the salicylate than men. The amount of salicylate to be given is incorporated in 120 to 180 c.c. of plain or starch water, with the addition of 1 to 1.5 Gm. of opium tincture. The dose may be repeated within twelve hours, but usually a daily enema suffices, with doses increasing perhaps from 30 to 50 per cent. daily until the limit of tolerance is reached. The largest daily dose which was given was 24 Gm. The only symptoms of salicylism usually appearing was tinnitus and excessive perspiration. The ready absorption was shown by a strong ferric chloride

reaction in the urine within thirty minutes. It would seem that the greatest absorption of the drug is within twelve hours. The promptness of the results and general efficacy of the treatment are illustrated by the cases reported. L. G. Heyn (Journal of the American Medical Association, September 19, 1914).

* * *

Tuberculosis, Emetine in Pulmonary.—While emetine probably has no effect on the tubercle bacillus, the author considers it a valuable addition to the measures available for reducing congestive conditions in the lungs. It is, therefore, both a preventive and curative agent in tuberculosis. The author uses ampoules containing ½ grain of emetine in 15 minims of distilled water. Diluting this in 4 parts of water, 1 minim equals 0.04 cg., and the author has come to consider 4 minims of this dilution a suitable dose to give for the purpose of controlling expectoration or lessening congestion.

Some of the cases of hemorrhage in which the author used emetine had only slight and occasional bleeding, but copious expectoration. Not only did all traces of blood disappear from the sputum, but the sputum itself decreased or ceased. This observation induced the author to employ the drug in some cases of copious expectoration alone, and the results were sufficient to justify announcement to the general profession. The drug was used in over 40 cases. Raeburn (British Medical Journal, March 28, 1914).

* * *

Wounds, Protection of Granulations in.—The usual method of occlusive dressing of granulating wounds by means of antiseptic ointments and moist antiseptic gauze is irrational. The dressing the author has devised consists of ordinary white mosquito net which has been infiltrated with a mixture of paraffin and petrolatum, of each, 2 parts, and stearin, 1 part. This allows the granulations to grow through its mesh, but not intimately into its threads, and removal is not attended by the usual accidents. Drainage through its interstices is free into the upper dressing, and it does not conflict with other elements required by the case. The technique is as follows: The mosquito net is cut into pieces of suitable size for convenient handling. The paraffin, petrolatum, and stearin in proper proportions are placed in a porcelain or metal bowl and heated to the boiling point. In this heated liquid a double thickness of the net is immersed for three minutes. It is then removed, the excess of the mixture allowed to drain off, and the surfaces separated to clear the meshes. The pieces are then folded and wrapped in oiled paper. Several of the packages are wrapped together in a towel or dressing-cap and sterilized in an autoclave. The oiled paper prevents the absorption by the dressing-cap or towel of the mixture liquefied during sterilization. After immersion the steps of draining and separation must be accomplished rapidly, before the cooling is sufficient to congeal the mixture in the meshes so that they appear as tiny window-panes. The dressing may be rendered antiseptic by the addition of phenol to the heated mixture in 0.5 per cent. strength. The net is specially asked for by patients who have had it used on them, as it gives more relief than any other single step in the treatment. V. A. Dodd (Journal of the American Medical Association, April 18, 1914).

Clinical Summary

Practical hints from articles and abstracts that have appeared in the Monthly Cyclopedia and Medical Bulletin during the current year.

Acne. TREATMENT. Acne vulgaris in childhood or adolescence responds well to thyroid treatment. Thymus employed with advantage in cases with enlarged thyroid and rapid heart. *Morris.* Page 11

1. Internally: Equal parts of precipitated sulphur and milk-sugar; patient to swallow several times a day as much as is held on tip of a penknife. 2. Externally: Paint at night with a mixture of 10 parts of sulphur, 25 parts of alcohol, and 5 parts of glycerin. 3. Regulate bowels. 4. Meat, eggs, cheese, and sugar to be avoided. 5. Later, a ten- to fourteen- day course of Röntgen-ray exposures, one-third or one-fourth erythem doses being applied at 6 or 8 sittings, to a total of one and a half erythem doses. 6. Four or five weeks after this course, application of mercury quartz lamp for twenty or twenty-five minutes. The skin is to be carefully protected for eight or ten days and then gone over with the comedo extractor, any red spots left being treated with sulphur. *Kromayer.* 357

Acne Keloid. TREATMENT. In early cases small, isolated nodules may be excised; they do not recur if the incision is free of the circumscribed sclerotic mass constituting the nodule. *Adamson.* 357

Acromegaly. TREATMENT. Case of acromegaly in which thyroid treatment caused headache, dizziness, vomiting, and melancholia to disappear, while pituitary treatment always caused their return. *Salomon.* 30

Alopecia Areata. TREATMENT. (1) The B. P. unguentum hydrargyri iodidi rubri (diluted from 4 to 2 per cent.); (2) the unguentum hydrargyri oxidi rubri, with acetum cantharidis, ʒj to ʒj, and (3) equal parts of sodium chloride and petrolatum found seviceable in this condition. Pure phenol often gave good results. Causes of peripheral nervous irritation, such as carious teeth, errors of refraction, or aural defects, to be investigated. In severe cases pilocarpine nitrate, injected into the scalp every week or fortnight in doses of 1/10 to 1/6 grain, is sometimes beneficial. *Dore.* 358

Amenorrhea. TREATMENT. In amenorrhea, flooding, dysmenorrhea, etc., mammary extract treatment often proves corrective. *Berkeley.* 20

In amenorrhea, relative or absolute, ovarian extract considered best remedy by author. *Bandler.* 91

Anemia. TREATMENT. Joint administration of ovarian extract with iron and arsenic in anemias, including chlorosis, in females, recommended. *Bandler.* 91

Angina Pectoris. TREATMENT. Concussion at level of seventh cervical vertebræ, together with hypodermic injection of 1/10 grain (0.006 Gm.) of pilocarpine, to increase vagus tone, gives relief more promptly than does morphine. *Jarvis.* 160

Ankylostomiasis. TREATMENT. Betanaphthol in 30-grain (2 Gm.) doses given the first thing every morning is likely to prove more effectual than eucalyptus or thymol. Starvation of patient during such treatment is unnecessary; in bad cases it may be harmful. *Keith.* 165

Appendicitis. DIAGNOSIS. Following sign found valuable in diagnosis of appendicitis in small children, who show no sign of localizing appendicular pain: Upon light pressure over both iliac fossæ, the child executes slight movements of the right leg. If the pressure be increased, the right leg becomes rigid and irregular movements of the left leg are executed. Often the face suddenly flushes when pressure is made with the finger over the appendix. *Veau.* 477

TREATMENT. The appendix should always be removed in cases of localized abscess, whether it is free in the abscess cavity or deeply buried by adhesions. Results are far better than where the appendix is allowed to remain, as the author found in a series of 501 cases; not 1 died of peritonitis. The Fowler position, saline proctoclysis, and drainage of the peritoneum with a large split rubber tube inserted to the bottom of the rectovesical pouch should be carried out. *Knott.* 541

Argyria. TREATMENT. Hexamethylenamine, 10 grains (0.6 Gm.), caused marked improvement in the patient's coloration in a case of argyria due to collargol. *Crispin.* 542

Arthritis, Chronic. TREATMENT. Injections of phenol-camphor used with benefit. Must be made only into joint, never into spongy bone. Formula: Phenol, 30; camphor, 10; alcohol, 30. Only 0.5 or 0.25 c.c. is injected at one point, except in streptococcic processes, where 2 c.c. are necessary. *Pohl.* 235

Arthritis Deformans. TREATMENT. Gradual but permanent improvement noted in a number of cases after administration of thymus extract. Pain and swelling disappear and appetite returns. Nucleoproteid extract much preferable to crude gland. Treatment should cover several months, and small doses be continued for some time after apparent cure. *Berkeley.* 20

Bladder Papillomata. TREATMENT. Use of the high-frequency current is indicated

in the following classes of cases: (1) Papillomata of clinically benign appearance, not exceeding walnut size, even if multiple; (2) all recurrences, after either endovesical treatment or cystotomy; (3) cases of hemorrhage from malignant growths that cannot be arrested by the usual means. *Gehrels.* Page 610

Bronchitis, Acute. TREATMENT. Inhalations of recently prepared tincture of iodine from wide-mouthed bottles found to cure bronchial catarrhs in four days. Inspirations —from 4 to 8 or more at each sitting—to be more or less deep according to severity of case. Inhalations to be repeated 5 or 7 times a day. If much mucus, expectoration to be assisted by usual remedies. In children iodine tincture may be dropped on pieces of cotton to be laid on pillow (over oilcloth) while patient sleeping. *Torri.* 303

Bronchopneumonia. TREATMENT. Hot baths, followed by brief cold affusion, in acute bronchitis, bronchiolitis, and bronchopneumonia in young children reduce fever, stimulate expectoration, deepen breathing, exert soporific effect, improve appetite, stimulate elimination through skin, and seem to act specifically in shortening disease. Bath water is at 41° C. (105.8° F.), hot water being added as cooling occurs. Patient is bathed every three hours, up to 5 times a day. Baths particularly appropriate for feeble children who became chilled at periphery with internal temperature high. The weaker the child and higher the fever, the more frequently baths are given. Where the temperature not above 39° C. (102.2° F.), ten-minute bath is given 3 times a day. Hot bath is not contraindicated where temperature exceeds 40° C. (104° F.) in infants or very young children, though for older children warm baths may be substituted. At conclusion of each bath nurse elevates child from hot water so back of neck is exposed, and cold water is dashed once over neck, causing reflex gasp for breath. Child is next reimmersed momentarily in hot water and cold water poured on chest, after which he is dried, wrapped in warmed clothes, and placed in warmed bed. Baths to be continued once daily into convalescence if patient coughs. *Arneth.* 55

Burns. TREATMENT. (1) Hypodermic injection of morphine and atropine. (2) Immerse burned area in, or cover with light cloth moistened with, cold water to which has been added 1 teaspoonful of sodium bicarbonate or chloride per quart; continue until morphine effect manifest. (3) Spray or mop burn and surrounding surface with hydrogen dioxide, mop with dry gauze, apply gauze strips dipped in 2 per cent. picric acid solution in dilute alcohol, and cover with thin layer of cotton and adhesive strips or bandage. Allow dressing to remain till soiled, then reapply. (4) About third day, open blisters and mop away contents. (5) Where sloughing: Remove dead tissue as it loosens, cleanse surface with dioxide, dry, mop with picric solution, put on strips of rubber tissue previously kept in 1:1000 mercury bichloride solution, and cover with picric acid compress and cotton. *Plain.* 299

In infected burns a dressing of mercuric iodide, 1 Gm. (15 grains); potassium iodide, 4 Gm. (1 dram), and water, 100 c.c. (3⅓ ounces), is effectual. *Macfarlan.* 554

Cancer. DIAGNOSIS. Marked diminution of the area of cardiac dullness in the recumbent posture, as determined by percussion, found in 87 per cent. of 111 cancerous cases and only 16 per cent. of 107 noncancerous cases. This sign may be present in cancerous cases that show no wasting. When the sign is present, diagnosis of carcinoma should be rejected only after careful consideration. In some cases the sign has appeared early enough to enable successful resection to be carried out. *Gordon.* 234

Cancer, Gastric. DIAGNOSIS. Positive or negative diagnosis made by serial röntgenography in 616 cases. Of 97 cases operated on, diagnosis found absolutely correct in 94. Gastric cancer at any stage, or indurated gastric ulcer, can be detected by this method as accurately as renal calculi or bone fractures. *Cole.* 301

Cancer, Mammary. DIAGNOSIS. Value of following early signs emphasized: (1) Slight changes in the contour of the areola, the border becoming irregular. Later, areola may become smaller and even almost disappear. (2) Elevation of the nipple when compared with that of opposite side. (3) "Pig skin" is another evidence of the local contracture, which is of great diagnostic significance. *Van den Berg.* 603

Cancer of Rectum. TREATMENT. Soft, annular, vascular growths are generally much more favorably influenced by radium treatment than flat, hard plaques. Growths in the upper half of the rectum appear the more amenable. Previous colostomy is often advisable. The routine method consists of a thirty-hour exposure—five days of six hours each—with a tube containing 100 mg. of radium bromide, screened with a 2 mm. of lead and 3 mm. of rubber, in actual contact with the growth, the series of exposures being repeated in six weeks. *Pinch.* 612

Cellulitis. TREATMENT. Packing infected arm from fingers to shoulders in hot mixture of saturated magnesium sulphate solution and glycerin in equal parts found to control infection promptly. *Freese.* 304

Chancroid. TREATMENT. Fuchsin in 5 per cent. ointment with petrolatum found very efficient in 9 cases, healing them in less than two weeks. The average duration of treatment was eight days. The parts are cleansed and the ointment is to be applied

by the patient twice daily. If the prepuce can be brought over the glans no dressing is required. Fuchsin, however, stains linen red. *Kantawala.* Page 604

Colles's Fracture. TREATMENT. In reduction soon after the accident, without anesthesia, the most satisfactory method is a sudden, sharp jerk of the wrist administered by clasping one's fingers under the upper fragment, making pressure with the thumbs on the dorsum of the lower fragment, and abruptly pronating the hands. *Allen.* 419

Conjunctivitis. TREATMENT. Instillation of a 1 per cent. solution of ethyl hydrocupreine hydrochloride, allowed to remain one-half minute, recommended in pneumococcic conjunctivitis, dacryocystitis, and corneal ulceration. *Suttler.* 481

Constipation. TREATMENT. Constipation and rectal irritation in neurasthenics greatly benefited by the perineal and anal douche, hot as can be borne, followed by cold douche at 60° to 50° F.; stronger revulsive effects are obtainable with an alternate hot and cold application. *Pope.* 50

Corneal Ulcer. TREATMENT. Bathing part with 1 per cent. ethyl hydrocupreine solution for one-half minute every hour, six hours first day and twelve on next, found rapidly effectual in a case of ulcus serpens with hypopyon from chronic dacryocystitis. Sac expressed and conjunctiva cleansed with boric acid before each treatment with ethyl hydrocupreine, which was dropped on the ulcer. Practically specific against pneumococcic infections. *Wiener.* 168

Vioform in 2 to 4 per cent. ointment with petrolatum base, or in 1 or 2 per cent. strength in sterile oil, found useful in ulcers and injuries of cornea and sclera. *Dutoit.* 495

Coryza, Acute. TREATMENT. 1. Pill of morphine, ⅛ grain (0.01 Gm.), and a small dose of nitroglycerin. 2. In two hours, 10 grains (0.6 Gm.) of acetylsalicylic acid. 3. Hot bath. 4. On following morning, magnesium sulphate. 5. Locally, an ointment containing menthol, methyl salicylate, and oil of wintergreen in a lanoline base, to be sniffed back in nostril frequently, and followed by chloretone inhalant. 6. If discharge, feverishness, and periodic headache persist after a few days, patient should inhale steam from boiling water to which menthol and alcohol have been added. *Wilson.* 484

Delirium Tremens. TREATMENT. (1) Withdraw cerebrospinal fluid by lumbar puncture in amounts as large as possible—50 to 60 c.c. (2) Inject with syringe an equal amount of sterile 1 per cent. sodium bromide solution. Immediate improvement in delirium usually occurs, followed by temporary return and then permanent disappearance of delirium. Relapse occasionally after a few days; usually controlled by repetition of injection. *Kramer.* 110

Dengue. TREATMENT. Three out of 7 cases were rapidly improved by administration of 30 drops of a 1:1000 solution of epinephrin by the mouth. Epinephrin is likely to prove useful in shortening convalescence in this disease and in mitigating the grave cases. *Khoury.* 329

Diabetes Insipidus. TREATMENT. Case in which injections of pituitrin caused marked, though but temporary, inprovement. *Farini.* 277

Diabetes Mellitus. DIAGNOSIS. Frommer's test recommended for detection of small amounts of acetone. Treat about 10 c.c. of urine with 1 Gm. of sodium hydroxide in substance and without waiting for it to dissolve; add 10 or 12 drops of a 10 per cent. solution of salicylaldehyde in absolute alcohol. Heat to 70° C. In the presence of acetone, marked purple-red color develops at zone of contact with alkali. This test indicates presence of 0.000001 Gm. of acetone. Urine must be diluted so that its specific gravity is about 1.01. *Muhlberg.* 232

TREATMENT. Therapeutic value of an "easy nitrogenous diet" pointed out, *i.e.,* of one consisting almost exclusively of milk and its derivatives, cereals, fruits, and vegetables. Such a diet partially takes off burden of nitrogenous metabolism from liver and tends to relieve its instability as regards glycogenic function, therefore often causing glycosuria to disappear. *Cornwall.* 110

Dry vegetable diet recommended for cases in a state of acidosis. Patient to take daily 10 ounces (300 Gm.) of dried legumins (peas, beans, lentils), 5 ounces (150 Gm.) of butter, 3 to 6 eggs, and 3 to 6 aleuronat or gluten rolls. Green legumins may also be given. Soy beans may be used. This diet to be followed at least 3 days at a time. The starch it contains is better utilized than that of other foods, glycosuria often being not higher than under a diet poor in carbohydrates. The diet also combats nitrogenous loss; somnolence and anorexia, where present, often disappear, and diaceturia diminishes. *Labbé.* 300

Diphtheria. TREATMENT. Iodine ointment used locally in 30 cases. With 2 cotton pledgets secretions and false membrane were first removed and the surface dried, and a third pledget, smeared with the ointment, was then rubbed on the affected surface and surrounding area. This was done every 3 hours, or in severe cases every 2 hours, until improvement occurred. Many cases cleared up within a few hours, becoming free of false membrane on the second or third day. *Thomas.* 364

Dysentery, Amebic. TREATMENT. Use of quinine advised as an adjuvant to ipecac in resistant cases of this affection. Successful results were thus obtained in cases that failed to react favorably to emetine. *Brooke.* 417

Dysentery, Bacillary. TREATMENT. In acute form: (1) Rest and warm covering; (2) only small amounts of food at a time; (3) calomel at the outset; (4) acid drinks; (5) enemata of saline or soda solution or of methylene blue. In chronic form: (1) Rest; (2) enemata of 1:500 or 1:1000 silver nitrate, 0.25 to 0.5 per cent. tannic acid, 1:500 or 1:1000 thymol, 1 to 2 per cent. resorcinol or creolin, or enemata of gum arabic mixed with bismuth subgallate or iodoform; (3) phenyl salicylate, tannigen, ichthyol, or calomel internally; (4) serum treatment, 10 c.c. in mild cases, 10 c.c. twice at six- to ten- hour interval in medium cases, and 40 to 60 c.c. in severe cases, not exceeding 20 c.c. at a time when serum used daily; (5) appendicostomy or cecostomy with irrigation in severe cases. *Bassler.* Page 111

Following treatment recommended: 1. Calomel, 5 grains (0.3 Gm.). 2. Barley water and boiled milk for a day or two. 3. Warm applications to abdomen. 4. Six hours after calomel, an injection into bowel of sodium salicylate, 13 Gm. (3¼ drams); water, 650 c.c. (1⅓ pints) at body temperature, with a small dose of Dover's powder. Injection to be repeated if necessary on alternate days. In children, about 90 Gm. (3 ounces) of the salicylate injection should be used. 5. In chronic dysentery, a 10 per cent. decoction of simaruba bark, 1 dram (4 Gm.) every three hours. *Lutsch.* 481

Dysmenorrhea. TREATMENT. Cocaine applied to tuberculum septi in nose and anterior portion of inferior turbinate on both sides, followed by application of trichloracetic acid over these spots, in 93 cases. Four applications made between periods. Cases with premenstrual headache, nausea, and colic at onset of flow—but without organic pelvic lesions—completely relieved. Of 81 cases sending subsequent reports, 48 had been cured and 14 improved. *Mayer.* 167

Atropine found very useful, except in cases with high blood-pressure, when pressure must be reduced and cause sought and removed. *Stolper.* 235

Following exercise recommended: The patient lies on her back with the knees flexed and one hand on adbomen, and is then directed to see how high she can raise the hand by lifting the adbominal wall, and then depress it by contracting the abdominal muscles. This is to be repeated 10 times, night and morning. Jerky movement is to be avoided. Pain was lessened in many cases and wholly removed in a large number by this method. *Mosher.* 481

Cases of dysmenorrhea due to functional ovarian deficiency are almost invariably relieved by corpus luteum extract—obtained from pregnant cows only—in 5-grain (0.3 Gm.) capsules taken three times a day. *Dannreuther.* 520

Eclampsia, Puerperal. TREATMENT. Report of 2 cases in which pituitary extract injections—2 in each patient—yielded successful results, labor being brought on thereby. *Schlossberger.* 28

Eczema. TREATMENT. Both chronic and acute forms respond to thyroid treatment. Fat subjects and those with xerodermia respond best. *Morris.* 11

In mild acute cases paint on lesions an aqueous solution of picric acid several times daily; in more severe cases apply wet dressings of the acid, held by facial mask. Prompt and gratifying results. In subacute and chronic types cure hastened by beginning treatment with two or three days' application of picric acid solution. *Wilcox.* 176

In moist infantile eczema involving chiefly the head and face, a compress of boric acid solution, or 1 per cent. resorcinol solution, or even normal salt solution, will effect a transformation in twenty-four to forty-eight hours. Two masks are made of several thicknesses of fine linen, one being carefully washed while the other is in use. The compresses should be renewed every three hours. When the surface has become dry and shining, an ointment of boric acid and ichthyol (3 per cent. of each) should be substituted. In other cases less acute, frequent applications of a 3 per cent. aqueous solution of ichthyol followed by calamine lotion are excellent. *Chipman.* 605

Edema, Angioneurotic. TREATMENT. Pituitary and adrenal preparations found useful. *Morris.* 11

Elephantiasis. TREATMENT. Case in which Kondoleon's operation was successfully performed, with continuous postoperative improvement. Deep fascia of the leg was dissected off the muscles from the inner and outer aspects of the part, and cut away in one piece. The same area of subcutaneous tissue was removed by splitting it off the skin, the latter being then stitched back in position. Thiosinamine and salvarsan were also used. *Royster.* 546

Epiglottiditis, Acute. TREATMENT. In acute phlegmonous inflammation of the epiglottis and contiguous tissues, frequently a primary condition, half-hourly applications of a 25 per cent. ichthyol-glycerin mixture, preceded by incision, prove very beneficial. Stock or autogenous vaccines should be considered in the treatment. Ice may be used externally. *Lederman.* 605

Epilepsy. TREATMENT. Four patients with severe essential epilepsy treated with subcutaneous injections of cerebrospinal fluid, taken for each from another epileptic. Considerable benefit. Dose of fluid injected, 3 to 5 c.c. biweekly or weekly. Improvement striking both as to severity and frequency of attacks. In some, petit mal took place of grand mal. Greatest improvement noticed especially if injected fluid was taken from other patients during recurrent

attacks, no matter how slight the latter. *Gordon.* Page 235

The tendency to bromism may be combated by 1½ grains (0.1 Gm.) of dried thyroid every morning for three weeks, suspending the administration from time to time for a fortnight. Two doses, each of 15 grains (1 Gm.), of potassium bromide are to be given daily at 10 A. M. and 10 P. M., dissolved in half a wineglassful or less of water. The bromide is to be given regularly. A chlorine-free diet is enjoined, and, should acne appear, the pustules are to be treated with an application of chlorinated soda solution and sulphur ointment. *Sicard.* 601

Epistaxis. TREATMENT. Subcutaneous injection of 8 minims (0.5 c.c.) of pituitrin brought early relief in 5 cases. *Citelli.* 279

Epithelioma. TREATMENT. Concentrated sunlight, focused on growth with ordinary magnifying glass, found effectual. Useful where X-rays and radium not available. Invariably successful in obstinate recurrent ulcerative patches on face or nose. Focus sunlight on sore for ten or fifteen minutes at a sitting. If scab present, concentrate rays till burning is felt, then lengthen focus to cover wider area. Induce burning again every few minutes. Treat every day or two till scab easily removed, then apply a little cocaine and after three or four minutes apply rays so as almost to cauterize base of ulcer. Alternate with milder applications for fifteen minutes. Under milder treatments thereafter, at longer intervals, cure usually complete in three to six weeks. *Seelye.* 166

Erysipelas. TREATMENT. In severe erysipelas a single small vaccine inoculation,—5 million,—preferably of autogenous vaccine, will usually cause a critical fall of temperature, and a second or third dose at about five days' intervals generally completes resolution. *Whitfield.* 56

In facial erysipelas: Have beside bed bowl of boric acid solution in which ice is placed. Keeping cloths frequently moistened with the solution continuously on face effectually relieves pain and burning. Where leg or arm involved: Wet dressings of boric acid or aluminum acetate. In migratory cases: Ichthyol may be applied or surfaces painted with picric acid solution. *Erdman.* 112

Pyramidon used in 20 cases with uniformly favorable results: Diaphoresis, antipyresis, sedation, fading of eruption, which ceases to spread, and improved general condition. Diuretic beverages also given. Locally, following ointment used: Phenolis, camphoræ pulveris, ana gr. xv (1 Gm.); adipis lanæ hydrosi, petrolati, ana ʒss (15 Gm.). *Satre.* 167

Discomfort and pain more rapidly relieved by picric acid solution than other agents, and edema disappears promptly. *Wilcox.* 176

Two facial cases treated by local applications of hepatic lipoid, rapid recovery following. *Tilmant.* 416

Following solution recommended as a dressing for the affected area: Mercuric iodide, 1 Gm. (15 grains); potassium iodide, 4 Gm. (1 dram), and water, 100 c.c. (3⅓ ounces). *Macfarlan.* 554

Series of 148 cases treated with leucocyte extracts. The results obtained were constant and marked, the symptoms in practically all the cases disappearing within a few hours after the first injection, and the rash gradually fading. *Hiss and Dwyer.* 588

Erythema. TREATMENT. Epinephrin used in 3 cases of erythematous taches of the face ("red nose"). A 1:1000 solution was given internally in 5-minim (0.3 c.c.) doses in water 3 times daily half an hour before food, and the treatment continued during five to six months (with short intervals). The erythema almost entirely disappeared, and a year and a half after treatment it had not reappeared. No bad effect on the heart or blood-pressure was observed. *Rothmann.* 348

Erythema Multiforme. TREATMENT. Use of a colon bacterin may be of value in this condition. *Hazen.* 542

Felon. TREATMENT. Mixture of saturated magnesium sulphate solution and glycerin in equal parts found to control infection in an unusually short time. *Freese.* 304

Where there is as yet no pointing or definite formation of pus, a wet dressing of mercuric iodide, 1 Gm. (15 grains); potassium iodide, 4 Gm. (1 dram), and water, 100 c.c. (3⅓ ounces), will usually reduce the course of the affection and frequently abort it. *Macfarlan.* 554

Fracture of External Malleolus. TREATMENT. Case of oblique fracture of fibula, involving malleolus, in which, great pain continuing after splinting, the malleolus was exposed by rectangular incision and, after detachment of external lateral ligament, entirely removed. The foot was splinted at a right angle to the leg. Pain ceased, and on the twelfth day the patient could stand on the foot without discomfort. Similar treatment recommended for all detached external malleoli. *Bland-Sutton.* 360

Fracture of Femoral Neck. TREATMENT. In adults the author recommends the addition of a side pull to the Buck extension. The side pull is exerted on the upper end of the thigh by means of a weight and pulley, the latter being placed opposite the crest of the ilium. It can be attached to the wall, a standard, or the side of the bed, and should be so adjusted that the pull is upward and outward at an angle of 45 degrees. The amount of weight at the foot of the bed should be sufficient to overcome the shortening, and the side weight about one-third of the foot weight. A well-padded splint of

surgeon's felt, or sole leather, should be applied to the inner and under sides of the thigh, coming well up to the perineum, and fastened to the thigh by adhesive plaster encircling the limb. A band made of several layers of gauze or cheesecloth is convenient for the side pull. It should be fastened to the splint by adhesive plaster. By shortening the lower arm of this gauze the limb can be rotated inward, thus avoiding eversion. *Moore.* Page 361

Fracture, Ununited. TREATMENT. Osmic acid, 0.02 Gm. in 1 per cent. solution, injected directly into focus in a case of ununited fracture of fibia and fibula, rebellious for six months. Injection repeated 3 times in two weeks. Patient discharged two weeks later. Stimulating action of the acid on periosteum and marrow confirmed in rabbit experiments. *Segrè.* 307

Fractures about the Elbow. TREATMENT. These cases should be started on an internal right angular splint. At the second or third dressing, while the fragments are still plastic and when the swelling has subsided, the wrist should be slung from the neck, obtaining the most acute flexion possible without too much pain. The flexion is increased at subsequent dressings for two or three weeks, when it is decreased again until all dressings are abandoned at the end of four or five weeks. *Allen.* 419

Furunculosis. TREATMENT. Where boil already soft: (1) Paint tincture of iodine freely over and around it; if several lesions close together, paint over entire area. (2) Place gauze pad with 10 per cent. ichthyol in petrolatum over the area, cover with a little cotton, and hold with bandage. (3) Next day, remove pus, wipe with benzine, and reapply iodine and ichthyol. (4) When pus entirely absorbed, discontinue iodine, but apply pure ichthyol. (5) To activate epithelial growth where necessary: Argenti nitratis, gr. xv (1 Gm.); balsami peruviani, gr. lxxv (5 Gm.); adipis lanæ hydrosi, ʒiiiss (100 Gm.).—For a furuncle not yet softened: (1) Apply iodine. (2) Thick coating of ichthyol, to be allowed to dry on or covered with a little absorbent cotton and gummed adhesive. (3) Next day, wipe off ichthyol with warm water or if possible wash area with soap and water, and reapply iodine and pure ichthyol. (4) Stop iodine on third or fourth day, continuing ichthyol till all inflammation subsided. Single layer of gauze, tissue, or cigarette paper may be applied when ichthyol has dried. *Berger.* 113

In furunculosis of the external auditory canal, cleanse canal of cerumen, discharge, polyps, etc., and insert a wick of cotton, or of gauze if there is a discharge. Ripe furuncles should first have been incised in their centers. The wick is to be kept saturated with alcohol, plain or with boric acid, and should be changed daily. If pain is severe, and no pus can be located, it is best to give a sedative and wait for pointing, rather than incise at random. *Lothrop.* 482

Wet dressing of mercuric iodide, 1 Gm. (15 grains); potassium iodide, 4 Gm. (1 dram), and water, 100 c.c. (3⅓ ounces), recommended in the early stages of a boil. *Macfarlan.* 554

Gall-stones. DIAGNOSIS. In nearly every case of symptoms referable to gall-stones there is some calcium encrusted on the cholesterin core of the stones. The latter can, therefore, be detected with the X-rays. A small diaphragm, 1½ inches in diameter, and a fairly soft tube with rapid exposure should be used. A subsequent bismuth examination usually shows evidences of gall-bladder disease. To distinguish gall-stones from renal calculi, plates should be taken on both anterior and posterior aspects. The anterior plate will show the shadows small and sharp; the posterior, large and blurred; the reverse holds in case of renal calculi. *George and Gerber.* 547

Gastric Atony, Acute. TREATMENT. Continuous lavage of stomach through nose recommended. Cocainize nose and work soft oiled tube with 8 to 11 mm. lumen down into stomach. Attach longer tube and carry to receptacle. Amounts up to 5 liters thus drain away. Keep outlet of tube at level of bed to prevent aspiration of mucous membrane. *Grosser.* 305

Gastroenteritis, Infantile. TREATMENT. *B. lactis bulgaricus* in tablet form administered in 55 cases, varying in severity from moderate degrees of infection—6 stools a day—to the most grave—20 or more. From 3 to 10 tablets a day were given to each infant, according to the gravity of the illness. Results: 43 gained in weight; 2 lost; 3 gained and later lost, and 7 showed no change. There were no deaths. The temperature came down to normal within one to three days, and in two or three days the stools became yellowish or brown, well formed, and free from curds, mucus, and blood. *Schwartz.* 364

General Paralysis. TREATMENT. Remissions may be prolonged by suitable doses of tuberculin ($\frac{1}{1000}$ to $\frac{1}{5000}$ mg. of tuberculin residue). *Jackson.* 236

Glaucoma. TREATMENT. In non-inflammatory glaucoma, when operation is consented to, Elliot's sclerocorneal trephining is by far the safest procedure and the most productive of results. In 29 cases thus treated there were no serious complications at operation in any case. Seven eyes with absolute glaucoma were preserved that formerly would have been removed. In 7 other eyes which were sightly a small degree of vision was gained by the operation. In the remaining 15 the eyes gained considerably in vision and usefulness. *Reber.* 362

Goiter. TREATMENT. Vaccines prepared from coliform bacilli of patient's own bowel

administered in 8 cases of parenchymatous goiter, with disappearance of enlargement in one and diminution in the others. Initial dose usually 125 million, later increased, upon diminution of size of goiter, by 25 or 30 million weekly. Injections given weekly. *Langmead.* Page 23

Salicylates, creosote carbonate, menthol, thymol, etc., are helpful after the intestinal functions have been regulated. In nodular, cystic, colloid, fibrous, and intrathoracic goiters, iodine is seldom of value and sometimes dangerous. *Sajous.* 1

Colloidal silicon injections used with benefit in a case of simple goiter. Trial of this measure is advised in both simple and exophthalmic goiter before operation is resorted to. *Suard.* 345

Goiter, Exophthalmic. TREATMENT. Ligation of thyroid vessels and sometimes a portion of the gland is indicated (1) in patients with mild symptoms of hyperthyroidism; (2) in the large group having acute, severe exophthalmic goiters, and the chronic, very sick patients who, having exhausted all forms of treatment, are suffering from various secondary symptoms, and (3) in cases with marked pulsation and thrill of thyroid arteries associated with cardiac dilatation and loss of weight. Thyroidectomy later advisable, to prevent relapse to former condition. Should trouble recur before a partial thyroidectomy is made, or a severe relapse after partial extirpation, inferior thyroid artery should be ligated and half of remaining lobe removed when improvement occurs. *Mayo.* 16

In early and mild cases in virgins, author begins treatment with corpus luteum, which is useful as antidote to thyroid intoxication. *Berkeley.* 20

Report of cases improved by administration, for several months, of 20 to 30 Gm. (5 to 8 drams) of quinine divided among twenty days in each month. *Gaultier.* 90

Next to operative treatment, where indicated, repose is important. The patients should be gotten out of their ordinary environment. A trip to an altitude of about 3600 feet often acts favorably, starting first at 1500 feet. The patient should be well nourished, on a carbohydrate-fat mixed diet. Galvanic stimulation of the neck is often useful; the anode being on the sternum and the cathode behind the angle of the jaw, a current of 1 or 2 milliampères should be slowly turned on for one to three minutes and then slowly turned off. *Bauer.* 411

Strophanthus administered in exophthalmic goiter with good results. Quinine may be simultaneously used. *Bate.* 513

X-ray exposure of the ovaries carried out in 10 cases of exophthalmic goiter, with favorable results. A gain in body weight followed in 8 cases, the exophthalmos was diminished in 4 and removed in 1, tachycardia was sometimes considerably reduced, and in 9 very marked subjective improvement was noted. Diarrhea ceased in 3 cases after the first exposure. Although no complete cure was effected, the author was led to conclude that, in the usual cases of moderate severity, irradiation of the ovaries yields more certain and rapid effects than the measures customarily employed. *Mannaberg.* 529

Purgatives are useful in removing indican in this condition. The author recommends a combination of podophyllin, cascara, and oil of black pepper; also sodium sulphate, given with potassium bitartrate. Proteins are to be added to or taken from the diet, as indicated both by the urine and the patient's weight. The Bulgarian lactic acid bacteria are always of great value. *Jones.* 597

Results obtained with radium justify a trial of it when other treatments have failed. Prolonged exposures—thirty or more hours in all—should be given, with heavily screened apparatus containing 200 to 300 mg. of radium, so disposed as to cover as much as possible of the gland surface. Three or four weeks usually elapse before any effect is appreciable. *Pinch.* 612

Gonorrhea. TREATMENT. Iodine treatment gave excellent results in gonorrhea in the female: (1) Swab external genitals with a 3.5 per cent. solution of iodine in alcohol; (2) force a few drops of same solution in orifices of Skene's and vulvovaginal glands through blunt hypodermic needle; (3) with patient in Sims's position, insert Sims's speculum, swab vagina dry with cotton, and paint cervix with iodine solution; (4) swab posterior vaginal *cul-de-sac* and wall; (5) introduce narrow strip of gauze high up against posterior wall, and remove speculum; (6) give hexamethylenamine, 5 to 7½ grains (0.3 to 0.5 Gm.) four times daily in plenty of water. Where cervix and uterus chronically involved: (1) Paint cervix with iodine; (2) grasp anterior lip with volsellum and remove any stringy discharge; (3) insert small uterine sound if required; (4) introduce intrauterine syringe to fundus and instill 1 dram (4 c.c.) of iodine solution while withdrawing; (5) treat vagina as in acute cases. Repeat applications every third day in both acute and chronic forms. In all cases order hot douches of 4 to 6 quarts (liters) of hot saline two to four times daily, always followed by a 1-quart (liter) injection of 1:5000 permanganate or 1:250 picric acid. *Hofmann.* 48

Best results are obtained by the "sealing-up" method when the patient is seen within forty-eight hours after the beginning of the discharge. A 5 per cent. solution of argyrol, to the amount of 25 minims (1.6 c.c.), is sealed within the urethra for six hours on each of five consecutive days, with non-contractile collodion. The latter can best be removed with cotton soaked in acetone. During the six-hour period no liquids should be ingested. After the urethra has been emptied, however, the patient is required to drink a

quart of water to flush out the parts. Next day he should prepare himself for the treatment by limitation of fluid ingesta. *Ballenger and Elder.* Page 557

Gonorrheal Vaginitis of Children. TREATMENT. Mixed autogenous vaccines of gonococcus and usually staphylococcus, streptococcus, diplococcus, colon bacillus, etc., used in 40 cases with uniformly good results. Average number of injections required for cure, 7. Initial dose, 25 to 50 million, then gradually increased. Interval between injections not less than five nor more than seven days. If after six weeks case still needs treatment, as shown by examination of discharges, a second vaccine should be made. *Wolff.* 49

Headache. TREATMENT. In headache or head pressure in nervous fatigue a fomentation applied for five or ten minutes twice, and followed by a cold compress, is effective. If headache is congestive, use hot foot bath, followed by ice-bag to nape of neck and cold compress to forehead. Sitz baths at 90° F., or cold foot baths, often relieve. *Pope.* 50

Hemoptysis. TREATMENT. Subcutaneous injection of 8 minims (0.5 c.c.) of pituitrin nearly always brings relief in average cases. Where first injection fails, give a second, and later if necessary a third, the latter intramuscularly. *Citelli.* 279

Intravenous injections of 0.5 c.c. of pituitrin were followed almost at once by cessation of hemorrhage in 10 out of 12 cases. Where the hemorrhage recurred on succeeding days, the same prompt relief was obtained. *Rist.* 411

Hemorrhage, Cerebral. TREATMENT. Venesection used with good results and recommended in cases of apoplexy in full-blooded patients with blood-pressure of 200 mm. or more. Amount of blood let in author's cases, 12 to 48 ounces. Where vein at elbow not easily found in stout persons, there are usually varicose veins in legs which can be opened. *MacFarlane.* 121

Hemorrhage, Gastrointestinal. TREATMENT. Iodine tincture in small doses at short intervals found effective in checking hemorrhage and diarrhea in 6 cases of typhoid fever and in 4 of gastric ulcer. It also relieves abdominal tenderness in the latter condition. *Nottebaum.* 484

Hernia. TREATMENT. Inversion of hernia recommended in patients who take anesthetic poorly and maintain strong expiratory efforts, forcing viscera into sac under pressure. Primary union and cure of hernia in each of author's 7 cases thus dealt with. *Haynes.* 170

Herpes Labialis. TREATMENT. Picric acid solution causes rapid drying of lesion and tends to prevent extension. *Wilcox.* 176

Hodgkin's Disease. TREATMENT. Benzene, 5 minims (0.3 c.c.) three times daily at first, then increased to 10 minims (0.6 c.c.), caused marked regression of enlarged nodes, beginning two weeks after treatment begun, in a case previously treated unsuccessfully with X-rays. The 10-minim dose was continued for six weeks. *Lawson and Thomas.* 173

Hyperchlorhydria. TREATMENT. Cream diet considered useful. (See Ulcer, Gastric.) *Nichols.* 169

Following measures recommended: (1) Magnesium oxide, combined with sodium sulphate and belladonna in small amount. (2) All food to be well cooked and most carefully minced. (3) Patient to take 2 or 3 meals at two-hour intervals in forenoon, but nothing after lunch until 7 P.M., when only porridge to be taken. (4) Fluid intake to be generally diminished and restricted to hours when stomach not filled with food. (5) In severe cases, or where gastroptosis: Rest in bed for two or three weeks. (6) Hot compresses twice daily for two hours; cold compresses at night. (7) If hyperacidity arises on basis of a catarrh: Rinse empty stomach in morning with 1:1000 salicylic acid or 1:500 silver nitrate solution. (8) Bowels to be carefully regulated. *Schmidt.* 302

Hyperthyroidism. TREATMENT. Injection into enlarged thyroid of 1 to 4 per cent. solutions of quinine and urea hydrochloride caused marked improvement in 3 cases. *Watson.* 265

Ileus. TREATMENT. Continuous lavage of stomach through nose recommended in duodenojejunal occlusion, postoperative bowel paralysis, ileus from adhesions, spasmodic contraction from peritonitic reflexes, and vicious circle after gastroenterostomy. (See Gastric Atony, Acute.) *Grosser.* 305

Impetigo. TREATMENT. In exceptional cases which do not yield to local measures, a few staphylococcic vaccine inoculations—usually, in fact, a single one—will cause prompt cure. *Whitfield.* 56

Infections, Local. TREATMENT. Following summary of serviceable measures present: *A.* Inflammations with slight serum exudation, but with redness, heat, swelling, pain, and loss of function: 1. Rest. 2. Elevation. 3. Hot, wet dressing.—*B.* Where much serum exudation, but slight tendency to necrosis: 1. Incision. 2. Place gauze in wound saturated with Chlumsky's solution. (Camphor, 60 parts; phenol, 30; alcohol, 10.) 3. Wet dressing; keep wet. 4. Remove gauze in twenty-four hours. 5. Insert rubber drain. 6. Apply wet dressing.—*C.* Where marked necrosis: 1. Incision. 2. Drainage. 3. Wet dressing. 4. After inflammation receded, Durante's solution. (Iodine, 1 part; potassium iodide, 10; guaiacol, 5; glycerin, to make 100.) 5. Dry dressing. *Hoag.* 307

Insanity. TREATMENT. Recovery in manic-depressive insanity may be hastened by stimulation of leucocytosis by injection

of 1 c.c. of terebene subcutaneously in the flank. *Jackson.* Page 236

Insolation. TREATMENT. 1. Ice packs or iced baths, for a few minutes at a time only, and to be discontinued when rectal temperature has reached 104° F. 2. Saline solution. If used by rectum, formula should be: Sodium chloride, 30 Gm.; sodium carbonate (crystallized), 20 Gm.; water, 1000 c.c. Introduction should last one hour. If used intravenously: Sodium chloride, 14 Gm.; sodium carbonate, 10 Gm.; water, 1000 c.c. The salt solution should be made first and boiled, and the carbonate crystals then added. 3. Digitalis, only where the preceding fails to excite diuresis. 4. Later, for headache: Acetanilide, acetphenetidin, or salicylates, with due caution. 5. For sleeplessness: bromides, trional, etc. 6. In apyrexial heat exhaustion, ice packs or baths are uncalled for, but saline solution should be administered, and combined with friction, massage, warm packs, and sufficient internal stimulant medication. *Woolley.* 548

Insomnia. TREATMENT. In nervous fatigue (neurasthenia) this symptom is best met by cold pack or dripping-sheet at bedtime, or by the trunk compress, consisting of a coarse linen bandage wrung out of water at 65° F. and covered by several layers of same material to exclude air; it should be worn all night. Excellent also is the neutral bath at 94° to 96° F. for from twenty to sixty minutes. *Pope.* 50

Intertrigo. TREATMENT. Paint picric acid solution on surfaces and separate them with thin layers of absorbent cotton. In the more severely infected cases wet dressings of picric acid. Prompt results. *Wilcox.* 176

Intestinal Motor Inactivity. TREATMENT. Pituitary extract recommended. Injection of 3 c.c. in adults causes evacuation in 88 per cent. of cases in from six to twenty minutes. Usually constipation later recurs, but often a single injection will induce several stools on same day and keep bowels regular for a day or two after. The extract is valuable for prophylaxis and cure of postoperative intestinal paresis. Continued, it tones up intestine and also stimulates stomach motility. For lasting effect, inject ½ c.c. intramuscularly every day for a week, then 1 c.c. every three days for another week, and thereafter 1½ c.c. once weekly. *Houssay and Beruti.* 27

Intestinal Stasis, Postoperative. PROPHYLAXIS. Harmful effects of abrasion of visceral peritoneum in operations can be overcome by introducing 6 ounces (180 c.c.) of sterilized mineral oil in abdomen and sponging it over coils of intestine. *Burrows.* 52

Iodine Poisoning. TREATMENT. Calcium lactate internally found useful in 2 cases of iodine poisoning from a course of potassium iodide. *Von den Velden.* 418

Lumbago. TREATMENT. Salicyl compounds or a 10- or 20- grain (0.6 or 1.2 Gm.) dose of quinine at onset of condition useful. Rochelle salts, ½ to 1 dram (2 to 4 Gm.) every hour or two until urine alkaline and bowels freely moved, also valuable. "Walking the lumbago off" may succeed if free perspiration accompanies the exercise. Turkish bath in early stage safer and more effective. Later: Rest, dry cups locally, deep massage, faradic current, and, if salicylates fail, iodine, in vegetable protein combination. *Henry.* 175

Lupus Erythematosus. TREATMENT. Benefit followed use of adrenal substance in this condition. *Morris.* 11

Lupus Vulgaris. TREATMENT. Where Finsen light not available, old tuberculin is capable of great service. Begin cautiously; then make steep rise in dose as soon as one dose ceases to call forth reaction. *Whitfield.* 56

Gold and potassium cyanide injected intravenously in 12 cases. Single dose, 0.01 to 0.05 Gm. Results good. Course of 12 to 14 injections followed by interval of two to three weeks, after which another treatment given. Even in severe cases, therapeutic results better than with tuberculin and other measures. *Poór.* 236

Lymphosarcoma. TREATMENT. Case with growth beneath sternomastoid muscle, recurring after removal, in which injections of Coley's fluid, chiefly into the swelling itself, caused the latter to disappear, with no evidence of recurrence one year later. Initial dose was ½ minim (0.03 c.c.), gradually increased for three weeks, an injection being given daily, until 10 minims (0.6 c.c.) was reached. This was continued two more weeks, and later another course of injections, on alternate days for a month, was given. *Spencer.* 549

Keratitis, Traumatic Exfoliative. TREATMENT. In the author's case the conjunctival sac was rendered anesthetic and douched with normal saline solution. With a Bowman discission needle several oblique punctures were made into the anterior chamber at and around the seat of trauma; before withdrawing the needle it was turned at right angles on itself to allow the antibody-containing aqueous to escape slowly. This, with the use of weak hydrogen dioxide lotion and 2 per cent. chloretone in parolene drops, proved sufficient to cure and prevent relapses. *Harry.* 618

Malaria. TREATMENT. In all cases the blood can be sterilized of plasmodia by giving 30 grains (2 Gm.) of quinine daily for three days, followed by 30 grains on the same day of the week on which the last of the three days fell, for a period of six weeks. The sulphate should be used; its solution should be effected in the stomach, either by exciting the flow of gastric juice or giving a little

hydrochloric acid. Where life depends upon immediate introduction of quinine—in comatose or cerebral forms chiefly—a soluble salt, usually the hydrochloride, should be given intravenously, well diluted with salt solution, in doses of 10 grains (0.6 Gm.), which will kill as many plasmodia as any larger dose. The drug need not be injected oftener than every eight hours. The intravenous route should be used until the drug can be given by mouth. *Bass.* Page 550

In malaria in infancy the following treatment is of value: (1) Cold baths to reduce the temperature, if practicable, and if not, hot ones. (2) Small doses of heroine and atropine, or morphine (guardedly) and atropine to control the convulsions. (3) A mixture of calomel and mercury with chalk, followed by plenty of castor oil, as hot as can be given. (4) Quinine, by the mouth in some syrup or as euquinine; by inunction in the form of the soluble salts dissolved in alcohol or glycerin, or, preferably, by hypodermic injections of the quinine and urea salt. (5) After acute symptoms have subsided, iron and essence of pepsin. *Booth.* 608

Mammary Abscess. Prophylaxis. Threatened mammary abscess underwent absorption in 2 or 3 cases soon after administration of pituitary extract. *White.* 283

Myasthenia Gravis. Treatment. Pituitary extract, combined with ovarian, found useful in 2 cases. *Lagane.* 85

Nasal Catarrh, Chronic. Treatment. Lavage with a solution of powdered boric acid, sodium bicarbonate, and sodium chloride in equal parts (with a little menthol added), 1 teaspoonful to a pint of tepid water, recommended. A ball-syringe should be gently used in carrying out the measure. Where local dryness is marked, the following oily spray is useful: Menthol, gr. v (0.3 Gm.); camphor, gr. ij (0.12 Gm.); oil of eucalyptus, ♏iij (0.2 c.c.), and oil of sweet almonds, enough to make f℥j (30 c.c.). *Wilson.* 484

Nephritis. Treatment. Case of chronic interstitial nephritis, already in uremic convulsions, in which renal decapsulation was performed. A narrow strip of capsule, about ¾ inch wide, was left on each side of the renal pelvis to form a cradle; for the suspension of the kidney a strong ligature was passed twice through each tag, the ends being carried through the adjacent muscles. The patient made an uneventful recovery; one year later he had gained 34 pounds and the urine showed no casts, albumin, or cells. *Lynch.* 545

Neuralgia. Treatment. Carbon disulphide, applied locally for fifteen seconds, often promptly relieves neuralgias, headaches, and nearly all local pains. *Seelye.* 542

Night-sweats. Treatment. Better results are obtained in the night-sweats of tuberculosis with aromatic sulphuric acid than with either agaricin or atropine. *Adams.* 552

Obesity. Treatment. Colloidal hydroxide of palladium, suspended in olive oil and liquid paraffin in proportion of 25 mg. of palladium to 1 c.c., caused marked loss of weight, without untoward action except some local irritation, in 2 cases of obesity. Dose, 2 c.c. of suspension, injected under skin of abdomen. *Kauffmann.* 116

Osteomalacia. Treatment. Case in which excellent results obtained from epinephrin, injected in doses of 8 minims (0.5 c.c.) of 1:1000 solution, daily, in 2 series of 9 injections each. Patient finally discharged cured. *V. Salis.* 278

Ozena. Treatment. Use of sugar recommended. For first week or two surgeon should carry out treatment himself, and precede sugar by removal of crusts from nose, softening them if necessary with hydrogen dioxide or sodium bicarbonate solution. Patient to use nasal syringe once daily. After crust removal, massage mucosa with cotton-tipped probe; then nostrils may be packed with ribbon gauze soaked in simple syrup, to be removed in twelve hours. Repeat this treatment on alternate days. After a fortnight patient can insufflate powdered sugar himself. *Harry.* 175

Paralysis Agitans. Treatment. Good results from administration of thyroid and parathyroid preparations with calcium chloride. *Gauthier.* 86

Pericarditis, Adhesive. Diagnosis. Retraction of the chest wall circumscribed along the left costal arch between the parasternal and anterior axillary lines, and with pulsation, is pathognomonic. To examine for retraction one should lay one hand on the lower part of the sternum and the other on the spine opposite; the patient then taking a deep breath, the chest is felt to grow narrower and a distinct systolic retraction perceived. Preference of edema for the upper part of the body, as well as the paradoxic engorgement of the neck veins during inspiration, are also characteristic. *Tornai.* 424

Perinephric Abscess. Diagnosis. Pain referred to lower limb of same side found of considerable diagnostic value. There are both pain and tenderness, particularly marked along external cutaneous nerve just below anterior superior spine and on external aspect of thigh. *Belikov-Chtomitch.* 117

Peritonitis, Tuberculous. Treatment. Operative treatment in 31 cases (27 adults) yielded improvement, usually very marked, in all but 4 cases. An incision 3 to 4 inches long was made through the sheath of the right rectus and the patient eviscerated in so far as possible, the intestines being caught in a nest of hot, moist towels and thoroughly washed with a solution of 50 per

cent. commercial hydrogen dioxide. The abdominal cavity was then thoroughly flushed with the same solution, after which it was washed with equal thoroughness with normal saline solution, as were also the intestines. The latter were then replaced and the wound closed with 3 layers of sutures. Primary union followed in every case. The patient must be got out of bed and about as soon as possible. *Judd.* 618

Injections of nitrogen into the peritoneal cavity in a case rebellious to laparotomy, X-rays and inunctions brought about rapid improvement and eventual cure. Four injections were given, of 500, 600, 800, and 600 c.c. respectively. *Brückner.* Page 619

Phlebitis, Chronic. TREATMENT. Local alternate hot and cold submersions and spray advised. Two tubs or pails are used, one containing cold water and the other water at 110° F. The affected limb is first submerged in the hot water for thirty seconds, then in the cold for fifteen seconds. This alternation is gone through 10 times, ending with the cold-water submersion. The part is then gently rubbed until the skin is dry and red, showing proper reaction. Gentle stroke massage in the direction of the venous flow is then to be carried out for ten minutes, the skin dusted with talcum powder, and an elastic support applied. The spray method (spraying with sponges of hot and cold water or a nozzle-spray attachment), applied for the same length of time, is useful to treat the upper parts that cannot be submerged. *Foster.* 424

Placenta Previa. TREATMENT. In marginal variety, inject 30 minims (2 c.c.) of pituglandol and at once rupture membranes. In central variety, according to extent of dilatation, perform version or introduce metreurynter and give pituglandol. Metreurynter generally expelled spontaneously in one-half hour. Then perform version and give second dose of pituglandol. *Gall.* 280

Pleurisy. TREATMENT. Autoserotherapy recommended in all cases of serofibrinous pleurisy in which pyemic infection is absent. A positive cure may be expected in over 80 per cent. of cases. In large effusions causing severe dyspnea and pain one should aspirate 10 to 200 c.c. of fluid and, before withdrawing the needle entirely, reinject 2 to 3 c.c. under the skin. Immediate relief from symptoms and a more rapid absorption of the exudate will follow. The injections should be repeated every other day until decided improvement takes place. *Pfender.* 417

Use of calcium lactate internally in pleurisy is indicated only when the effusion constantly recurs after puncture. *Von den Velden.* 418

Injections of 1:1000 epinephrin hydrochloride solution made into the pleural cavity in 20 cases, with constantly very favorable results. The amount injected was at first 0.3 c.c. (5 minims), and on the four or five succeeding days 0.2 c.c. (3.3 minims), in saline. Temperature began to descend on the third day, and the effusion underwent rapid absorption. *Wedensky.* 534

Pneumonia. TREATMENT. Ethyl hydrocupreine hydrochloride given internally in pneumococcic lung inflammation, with good results. Dose usually 0.5 Gm. (7½ grains) *t. i. d.*, daily amount not exceeding 1.5 Gm. (23 grains). In 9 cases no other medication was employed: in all of these temperature fell more rapidly, by crisis or lysis, than with other methods. No untoward after-effects. *Vetlesen.* 118

Vaccine treatment advised. First give polyvalent stock vaccine of pneumococcus and streptococcus, of each, 30 million, as soon as possible. Make sputum smears and cultures, blood-cultures in early cases, lung puncture in late ones, and prepare autogenous vaccine. If no definite response in twenty-four to forty-eight hours, repeat or preferably give autogenous vaccine. If still no response in thirty-six or forty-eight hours, double the dose. If there is response, as shown by improved clinical symptoms and signs, increased well-being, etc., defer reinoculation three days, or until the first symptoms of retrogression in general condition or physical signs occur. Maintain the dosage or increase it every two or three days until the patient entirely well. Generally about three doses are necessary. Average mortality with vaccine treatment only 5 to 10 per cent. Convalescence shortened and danger of complications lessened. In severe cases also give 20 to 30 grains of sodium citrate every two or three hours. *Craig.* 238

Epinephrin, 8 minims (0.5 c.c.) of 1:1000 solution in 1 pint (500 c.c.) of saline solution subcutaneously, caused prompt improvement in a desperate case. *Lonhard.* 281

Camphor-injection treatment recommended. A 30 per cent. preparation of camphor in oil of sesame, sterilized in a boiling water bath, should be used. As soon after the initial chill as possible, 2½ fluidrams (10 c.c.) of the preparation per 100 pounds of body weight should be injected hypodermically every twelve hours except in bilateral pneumonia and in severe toxemia, when injections should be made every six to eight hours. The site of injection should be the outer thigh or abdomen. The injection should be made slowly and the oil gradually deposited below the subcutaneous fatty tissue and not into it. *Cruikshank.* 426

Poliomyelitis, Acute. DIAGNOSIS. Preparalytic symptom: A peculiar, twitching, tremulous, or convulsive movement of certain groups of muscles, lasting from a few seconds to somewhat less than a minute. Usually affects part or whole of one or more limbs, face, or jaw, but sometimes whole body. Duration of spells short at first. Often accompanied by a cry similar to

hydrocephalic, or by brief period of unconsciousness. *Colliver.* Page 177

Polycythemia. TREATMENT. Report of a case in which the symptoms were greatly bettered by use of benzol, beginning with 1 Gm. (15 minims) *t. i. d.* of an emulsion containing 25 per cent. of benzol and of olive oil and 50 per cent. of acacia mucilage, and increasing up to 4 Gm. (1 dram) *t. i. d.* The red cells fell from 9 or 10 to 5 million, and the whites from 26,000 to 9500 during the year of treatment. *McLester.* 611

Pruritus Vulvæ. TREATMENT. In 2 cases of this condition associated with the menopause the itching was with great promptness relieved by internal administration of an extract of the corpora lutea of pregnant cows. *Dannreuther.* 520

Psoriasis. TREATMENT. Thyroid preparations found especially efficacious in psoriasis associated with adiposity. They should not be exhibited until eruption is fully developed. *Morris.* 11

Low nitrogen diet found to have very favorable influence upon psoriasis eruption, especially when extensive. Severe cases improve under such a diet almost to the point of disappearance of the eruption. *Schamberg, Kolmer, Ringer, and Raiziss.* 178

Application of picric acid solution brings immediate and constant relief from itching. *Wilcox.* 176

Puerperal Fever. PROPHYLAXIS. Whenever irrigation of vagina with boiled water through speculum yields a yellowish fluid, one should irrigate once daily for at least ten days with a 1:200 solution of lactic acid. Morbidity thereby reduced from 28.6 to 7.6 per cent. Full baths to be avoided before delivery. *Zweifel.* 54

TREATMENT. Intravenous injections of distilled water given in 142 cases of puerperal fever. Of 62 patients with pyemia and septicemia, 42 were cured. In an hour or hour and a half after an injection there is usually a chill, with rise in temperature. By evening or the following morning temperature will have fallen to normal, sweating usually accompanying the drop. *Ilkewitsch.* 53

Puerperal Sepsis. TREATMENT. Fixation abscess recommended in this and other severe infectious states, including pneumonia, appendicitis, typhoid fever, etc., whenever condition seems to be taking a turn for the worse. Inject 2 c.c. of pure oil of turpentine under gluteal skin. When abscess forms, evacuate through small incision (do not drain) and apply Bier cups twice daily. Excellent results in 18 cases. *De Lostalot.* 168

Abstention from curettage in cases of sapremia advised. Instead, one should dilate cervix, using first a dressing forceps, then a small dilator, and lastly a large dilator. After this, strips of gauze should be soaked in a 50 per cent. dilution of tincture of iodine. One strip is to be introduced into the uterus with a uterine sound, left about a minute, and then replaced by another. As a rule, from 5 to 8 strips are thus used. When a drain is required, the last strip is left in the uterus, to be removed later in about eight hours. *Welton.* 487

In the septicemic form, local disinfection of the genital canal is the first measure requisite. If temperature does not subside, or rises again, intrauterine douching with the following solution is advised: Tincture of iodine 2 fluidrams (8 c.c.); 95 per cent. alcohol, 8 fluidounces (240 c.c.), and sterile water, enough to make 2 quarts (liters). Once daily is sufficient. If a sharp rise in temperature follows, local disinfection should cease. An easily digested, largely liquid diet is indicated. Enteroclysis and serum treatment are at times useful. Continual septic symptoms plus an abdominal mass, palpable above the symphysis or Poupart's ligament, call for laparotomy. *Hirst.* 490

Pyloric Spasm. TREATMENT. Atropine in a certain proportion of cases brings relief. The author found that epinephrin hypodermically procures complete and lasting relief in most instances. In 2 cases the palpable pyloric tumor could be felt to melt away under its influence. Prolonged gastric lavage, using water at 105° F., also has a happy effect in relieving spasmodic stomach conditions. *Stockton.* 367

Pyorrhea Alveolaris. TREATMENT. Sensitized vaccine against streptococcus, staphylococcus, pneumococcus, and bacillus of Friedländer used in a number of cases. After 2 injections, mechanical and dental treatment added. After 4 or 5 injections, teeth clean and firm, and organisms gone. Three or four supplementary injections given. No recurrence in six months. *Bertrand and Valadier.* 304

Rabies. TREATMENT. Potassium iodide in 2 per cent. solution, 1 tablespoonful or dessertspoonful at frequent intervals throughout course of preventive injections, recommended as adjuvant in treatment. In 3 cases of abortive rabies symptoms promptly disappeared after use of potassium iodide. Advocated especially in cases where infection has existed in latent condition for some time. *Koch.* 55

Rachitis. TREATMENT. Pituitary extract given to 16 young children with rickets, and effects compared with controls. After a few weeks of pituitary, the children were able to stand and began to walk; fontanelles began to close and growth of teeth was considerably accelerated. Osseous tenderness gradually diminished, weight was gained, and musculature became firmer. *Weiss.* 218

Retention of Urine, Postoperative. TREATMENT. Pituitary extract injected intra-

muscularly in 21 puerperal and 24 postoperative cases with excellent results. *Ebeler.* Page 91

Rheumatism, Acute. TREATMENT. Intravenous use of sodium salicylate resorted to in 12 cases, 130 injections in arm veins being given in all. A very fine, sharp needle should be used. The solution is made by dissolving 10 Gm. of C. P. crystalline sodium salicylate in 50 c.c. of distilled water freshly sterilized by boiling. Each cubic centimeter contains 3 grains (0.2 Gm.) of the salicylate. Usually the dose was 15 or 20 grains (1 or 1.25 Gm.) and injections were given at twelve- or eight- hour intervals over a period of three to six days. Occasionally, in robust men, 30 grains (2 Gm.) were given, and as much as 120 grains (8 Gm.) in the first twenty-four hours, without unpleasant effects. Relief of pain was prompter and more pronounced than from oral administration. The method is indicated in patients unable to retain the drug by mouth; those who show little or no response to the usual method; to start the treatment with a few intravenous injections where pain is intense, and in cases with threatening heart complications, or in severe rheumatic affections of the eye. *Conner.* 428

Ringworm. TREATMENT. Body ringworm more easily controlled by painting on picric acid solution than by usual antiseptic ointment. *Wilcox.* 176

Wash part with a strong solution of sodium bicarbonate, swab with a mixture of 1 part of ether to 2 parts of alcohol, dry, paint with a 2.5 per cent. tincture of iodine, and apply immediately an ethyl chloride spray until the skin gets china white. In twenty-four to forty-eight hours the patch of ringworm will have become quiescent. Next tiny spots should be looked for and similarly treated. In ringworm of the scalp 3 or 4 applications of iodine and spray are required, but on the face or smooth surfaces 1 application suffices. *Foley.* 429

Sarcoma. TREATMENT. Sarcomata, if taken early, before dissemination, do very well under radium treatment. The burying of tubes of radium salts within the growth should be resorted to whenever practicable. *Pinch.* 612

Scarlet Fever. TREATMENT. Iodine ointment used locally in 19 cases (see Diphtheria). These cases were unusually free from local complications. *Thomas.* 364

Sciatica. TREATMENT. Eight cases treated by injections of 4 per cent. quinine and urea hydrochloride in salt solution into subcutaneous tissue over course of nerve. Fifty injections in all, without untoward results. Always decided relief after first injection and no further attack after third. Injections daily for 4 doses, then every other day until patient entirely relieved. Two cases of facial neuralgia also treated, with complete relief after second injection. *Cables.* 119

Scorbutus. TREATMENT. Calcium lactate, 45 grains (3 Gm.) a day, found a valuable measure. *Von den Velden.* 418

Shoulder Dislocation, Recurrent. TREATMENT. New posterior method of capsulorrhaphy described. An incision 4 or 5 inches long is made posterior to the axillary vessels, with its center over the humeral head. The tendon of the latissimus dorsi is exposed, and above it is the subcapularis. The capsule is aproached through the interspace between these muscles, and the necessary suture can be readily done. Care must be taken to identify the circumflex nerve and vessels. The advantages of this operation over the anterior one are numerous. *Thomas.* 615

Sinusitis, Frontal. TREATMENT. In a number of acute cases marked relief was noted—because of the free rhinorrhea set up—from the intranasal use of the following solution: Mercuric iodide, 1 Gm. (15 grains); potassium iodide, 4 Gm. (1 dram), and water, 100 c.c. (3⅓ ounces). *Macfarlan.* 554

Skin-grafting. Following method of dressing skin-grafts just after their application described: Strips of gauze, 6 to 8 layers in thickness, are thoroughly impregnated and buttered with sterile 33⅓ per cent. bismuth paste (Beck's paste). These are laid over the grafts smoothly for 2 or more inches beyond the wound. No wrinkles or folds should remain. Over these is placed a layer of absorbent cotton, and the whole he'd firmly by a roller bandage. The first dressing should be done on the fifth day, great care being exercised in the removal of the primary dressing. A similar dressing is reapplied and subsequent dressings done every third or fourth day as required. At about the fifth dressing one can peel from each graft a thin film of dead cuticle, leaving a firm, pink, healthy graft in position. *Coerr.* 358

Spasmophilia in Children. TREATMENT. Combined treatment with phosphorized cod-liver oil and milk curds from which the whey had been removed by washing with water (thus removing all mineral salts) was employed in 12 cases. A cure was obtained in 9 cases within a week, twice at the end of the second, and once in the fourth week. There was loss of weight, but this was soon made up on return to full milk diet. *Bernheim-Karrer.* 368

Syphilis. DIAGNOSIS. Luetin test valuable as diagnostic measure in tertiary and latent stages of syphilis, indicating a state of hypersensitiveness to spirochetal proteins induced by a period of cessation of introduction of these proteins previous to the test. Provocative injection of salvarsan, followed by both Wassermann and luetin tests, suggested to ascertain whether treatment has been curative in a given case. *Foster.* 179

Diminution in the bone conduction of sound, with otherwise normal hearing, is one of the earliest signs of constitutional syphilis. A tuning fork is struck and placed on the patient's mastoid process. When he no longer hears it, it is placed upon the physician's mastoid. If it is still audible to him, the test is positive, provided the patient's hearing was otherwise acute. The sign is positive also in brain tumors, hydrocephalus, epilepsy, and tetany. *Beck.* Page 491

TREATMENT. Epinephrin, 15 to 20 drops of 1:1000 solution in a little water by mouth, advised ten to fifteen minutes before injection of neosalvarsan, to prevent "nitritoid" symptoms, arising in some patients from the latter, *e.g.,* facial congestion, tingling in throat, nausea, and vomiting. *Galliot.* 212

Tetanus. TREATMENT. Case of tetanus in which, after the original wound and scar has been excised and pure phenol applied, subcutaneous injection of phenol was started, 1 fluidounce of a 1 per cent. solution being given. The strength of the solution was raised to 3 per cent. The groins and right axilla were treated alternately. Chloroform was administered at each injection owing to the spasms produced by the needle-prick. The urine retained its normal color throughout. No antitetanic serum was given. Recovery followed. *Reynolds.* 556

Tonsillitis, Ulcerative. TREATMENT. After thoroughly washing surfaces and crypts, apply 10 per cent. silver nitrate solution over ulcerated surface and carry down into crypts as well. Then dust thymol iodide with powder blower over gland and throw it into diseased lacunæ. Where tonsils seat of recurring inflammation, but patient objects to removal, use electric cautery. Selecting 3 or 4 crypts at a time, apply 10 per cent. cocaine solution to interior of each with fine-pointed cotton applicator. When anesthesia sufficient, introduce curved electrode into each crypt and turn on sufficient current to produce a white heat before electrode removed. Patients thus treated are freed from further attacks. *Bishop.* 241

Tracheobronchial Glandular Enlargement. DIAGNOSIS. Percussion of thoracic vertebræ, especially those above level of inferior scapular angles, affords tonal changes of clinical value in this condition; these must always be correlated, however, with mural signs in the individual case. In comparison with other (neoplastic) mediastinal masses, tracheobronchial tumors affect vertebral percussion sound less, and oftener produce dullness than hyperresonance. *Da Costa, Jr.* 180

Trigger-finger. TREATMENT. Paint the part with iodine, insert a fine bistoury in the flexure crease, and, pressing the point down to the tendon, draw it along for ½ inch. Relief is instantaneous and final. A small pad of boric gauze may be applied to make pressure for two days. The tendon is easily located by thumb pressure at the crease. *Abbe.* 492

Tuberculosis. TREATMENT. Garlic, 1 fluidram (4 c.c.) of the expressed juice or 2 drops of the essential oil three times a day, recommended in all forms of tuberculosis. Externally, poultices of crushed garlic bulbs, 1 part, with 3 parts of lard, or garlic ointment (50 per cent. of the juice in petrolatum) are to be applied.

Mercury biniodide, $\frac{1}{30}$ grain three times a day internally, and unguentum hydrargyri externally, give the best results next to garlic. In cases of severe toxemia, where more active elimination is necessary, the following treatments give best results: (1) Normal saline, 220 c.c., at 106° F.; also of value in hemorrhagic cases, intravenously. (2) Guaiacol, 32 drops in 220 c.c. of sterile water, at 106° F., intravenously. (3) Mixture of sodium salicylate, guaiacol, and glycerin, of each, 32 grains or drops in 220 c.c. of sterile water, at 106° F., intravenously. (4) A 2 per cent. aqueous solution of pure phenol (Bacelli's treatment), 1- to 5- c.c. doses hypodermically or by Murphy's drip in 10-c.c. doses; the kidneys must be watched. Cases of continued septic temperature, not improving from the above, should be treated surgically. For making the soil unfavorable for the tubercle bacillus, phosphorus, $\frac{1}{1000}$ grain t. i. d., and Fowler's solution, 1 drop t. i. d., give the best results. *McDuffie.* 431

Tuberculosis, Articular. TREATMENT. X-rays found useful in bone and joint tuberculosis. Aluminum or thick leather shield to be used. Treatment not to be employed in children less than 5 years old, and in older children epiphyses should preferably be avoided. Best effects noted in cases with sinuses and secondary infection. Part exposed from all sides to an erythema-producing dose; three weeks then allowed to elapse before repetition. Joints healing under the rays show but little limitation of motion. Abscesses with skin about to yield should not be rayed, owing to danger of necrosis. *V. Schede.* 165

Tuberculosis, Laryngeal. TREATMENT. Scarlet red, 10 per cent. in a mixture of equal parts of sesame oil and petrolatum, applied twice daily in cases with laryngeal lesions, whether ulcerative or not. No unpleasant results. Prompt relief of pain in every case, tendency of ulcerations to heal, hoarseness improved, and, where only infiltrations and edema, swelling markedly less after a few weeks. *Hinman.* 306

Tuberculosis, Pulmonary. DIAGNOSIS. Contrast between resonance of air-containing tissue and deadness of the airless spot is

striking when light percussion practised. If on increasing force of stroke dullness remains, one may conclude that there is an extensive area of airless tissue. A shorter apex on one side is of immense significance. In infiltrated apex a long, held inspiration gives a duller note on percussion than is found over healthy side; this is often of value in doubtful cases. Where history, symptomatology, and course of disease point to tuberculous infection, one may safely diagnosticate tuberculosis without any definite auscultatory signs. *Fishberg.* Page 54

The X-rays will demonstrate much more accurately the extent of involvement than any other diagnostic agent. In determining the operability of a surgical condition in a patient suffering also with pulmonary tuberculosis, or in giving a prognosis in a known case of pulmonary tuberculosis, radiographic examination is essential. *Moore.* 367

TREATMENT. Frequency of gastric atony and dilatation, with resulting digestive symptoms (aches and pains in chest and right hypochondrium, morning depression, insomnia, hepatic weight, vertigo, chilliness an hour after meals, fleeting edema, etc.), in pulmonary tuberculosis pointed out. Treatment: (1) Support to stomach and abdomen by Rose belt of plaster or moleskin, followed, upon improvement, by supporting belt to be worn continuously and later in daytime only. (2) No liquids with meals or for two to two and one-half hours after. (3) Lunch to be light. (4) Recumbency, with attempt to sleep for one-half to one hour after each meal. (5) No alcohol or fresh bread. (6) Medicinal treatment: Tr. nucis vomicæ, acidi hydrochlorici dil., āā f℥ss (15 c.c.); glyceriti pepsini, f℥iss (45 c.c.); aq. menthæ pip., q. s. ad f℥iij (90 c.c.). Teaspoonful in ½ glassful of water after meals. If much flatulence, add chloroform water, 2 or 3 minims (0.13 or 0.2 c.c.) to the dose, until relieved. (7) Cold shower or sponge baths, with needle bath to abdomen, followed by brisk rub, each morning. (8) Where mucous passages and flatus: Turkish towels, wrung out in hot water, to be applied to abdomen for one-half hour after meals. (9) Thorough mastication of food and abstention from worrying at meals. (10) Fats to be avoided at first. *F. N. Robinson.* 95

Measures to overcome fever described: (1) Where prolonged fever drains on patient's strength, pyramidon is drug to be preferred—5 grains (0.3 Gm.) in cachet at night, or, if necessary, three times a day. In neurotics bromides sometimes efficacious. (2) Rest in recumbency to be insisted on until temperature does not rise above 99° in men or 99.2° in women, when patient may sit in chair for two hours, then recline on couch, in open air if possible. Exercise then gradually increased. (3) Where severe cough, sedative mixture tends to prevent fever from the exertion and autoinoculation. (4) Where rest and drugs fail, cautious use of tuberculin (T. R. or B. E.), beginning with only 1/100000 mg., exerts antipyretic action, though often only for short periods. Tuberculin acts best in cases free from fever while at rest, but febrile when exercise taken. *Wethered.* 120

Value of auscultation at acromion process in apical tuberculosis emphasized; it amplifies all auscultatory signs over apices. Of 28 cases in first stage, all showed acromial breathing. *Magida.* 239

Guaiacol administration, beginning with 5 minims (0.3 c.c.) three times daily, increasing by 2 minims (0.12 c.c.) a week up to 12 or 15 minims (0.75 to 1 c.c.), and continuing the drug for four months or longer, yielded highly satisfactory results. The drug should be taken immediately before food. The following formula was used: Guaiacolis, f℥j (4 c.c.); alcoholis, syrupi limonis, āā f℥j (30 c.c.); spiritus chloroformi, f℥ij (8 c.c.); aquæ, q. s. ad f℥vj (180 c.c.). One-half ounce three times daily. *Mayberry.* 366

Typhoid Fever. TREATMENT. Venesection found to yield marked benefit in a case of typhoid fever with severe infection in toxemia. Removal of 6 to 14 ounces cannot do harm and may be productive of much good in such cases. *Rudolph.* 494

Use of repeated doses of only 3 or 5 million organisms urged. The results appear to be as satisfactory as from larger doses. The culture used in 10 cases was ordinary prophylactic stock vaccine, diluted with freshly boiled water. *Kahn.* 619

Ulcer, Gastric. DIAGNOSIS. Following combinations practically assure a diagnosis of ulcer: (1) Tender point with occult blood. (2) Hypersecretion with tender point. (3) Hypersecretion with occult blood. (4) Tender point with repeated positive thread tests. (5) Tender point with hematemesis. (6) Hematemesis with hypersecretion. (7) Hypersecretion with positive thread tests. *Verbrycke.* 114

TREATMENT. Cream diet used with success in 26 cases. One quart (4 glasses) a day yields 1800 calories. To this may be added 600 c.c. of milk or 6 slices of bread or 5 tablespoonfuls of oatmeal gruel or 3 eggs. Cream causes inhibition of gastric secretion. If not tolerated in full strength, it may be diluted with equal or greater amount of milk. Ice-cream a useful variant. Some marked cases progressed to good recovery in two or three months under cream diet. Method adapted for bed or ambulant treatment. Also useful as prophylactic against recurrence of ulcer. *Nichols.* 169

Ulcers. TREATMENT. In indolent tuberculous ulcers, 1 or 2 doses of old tuberculin usually cause complete healing in a week or two. *Whitfield.* 56

In old leg ulcers and infected wounds a dressing of mercuric iodide, 1 Gm. (15

grains); potassium iodide, 4 Gm. (1 dram), and water, 100 c.c. (3⅓ ounces), is of value. *Macfarlan.* Page 554

Urticaria. TREATMENT. Pituitary and adrenal preparations found useful. *Morris.* 11

Vaccination. Tincture of iodine, applied to the vesicle as soon as possible after the latter has formed, and repeated two or three days later, either prevents pustule formation or so limits it that the several pustules formed do not coalesce. The vesicles soon dry up and form a small scab. In not one of 116 cases so treated was there secondary infection with pus-producing bacteria, whereas in those not so treated about 30 per cent. were secondarily infected. There is no interference with the immunizing process. The scab should be kept covered with sterile gauze for several weeks. In cases of secondary infection with pus formation best results are obtained by removing the scab and pus, painting the base with tincture of iodine, and, when dry, covering with bismuth subiodide powder. Superfluous granulation tissue should be treated with a stick of silver nitrate. *Albert and Alden.* 369

Vomiting. TREATMENT. In paroxysmal vomiting of chronic, recurrent character, where no organic disease of stomach is discoverable, adrenal gland treatment is frequently of value. *Berkeley.* 20

Carbon disulphide, applied for fifteen seconds over the epigastrium, will produce the same effect as counterirritation with a strong mustard plaster for half an hour. *Seelye.* 542

Vomiting of Pregnancy. TREATMENT. Apomorphine, 1/36 grain (0.0018 Gm.) in a teaspoonful of water, found effectual in a severe case; likewise in other cases of vomiting or nausea. *Field.* 182

Thyroidin in 1½-grain (0.1 Gm.) tabloids given in several cases, with complete curative effect. *Koreck.* 284

Brilliant results obtained in some cases by administration of thyroid preparations. *Walker.* 409

Vomiting, Postanesthetic. TREATMENT. When vomitus of hemorrhagic type, give 5 to 10 minims (0.3 to 0.6 c.c.) of 1:1000 epinephrin hydrochloride in a teaspoonful of water. Cessation of vomiting follows. *Keay.* 93

Whooping-cough. TREATMENT. Vaccine containing 20,000,000 dead *B. pertussis* per c.c. used in about 70 cases. Infants received 1/3 c.c. as initial dose and 2/3 c.c. four days later; others, ½ c.c. and 1 c.c. Prompt, uniformly good and often striking results obtained. In cases already having a bronchopneumonia as complication, a mixed vaccine should be used. *Davidson.* 118

Silver nitrate in 2 per cent. solution applied to throat in 95 early cases to prevent spread of infection downward from pharynx. Useful results in 84 instances. Mucus secretion prevented and coughing spells due to irritation by secretion minimized. Silver solution applied every day at first; later, and in older children throughout, on alternate days. *Ochsenius.* 182

Epinephrin, 3 minims (0.2 c.c.) of 1:1000 solution, given every four hours in case in a child 7 years old, ill six weeks. Paroxysms markedly reduced almost at once. Drug then continued 3 times a day for three weeks more. *Lord.* 280

Wounds. TREATMENT. Stream of air from ordinary electric fan or register found useful in drying and promoting healing in large wounds, obstinate leg ulcers, and discharging eczema. *Heisler.* 182

Mixture of saturated magnesium sulphate solution and glycerin in equal parts recommended for dressing infected wounds. *Freese.* 304

Following summary presented: *A. Incised wounds:* 1. Paint with iodine. 2. Shave dry. 3. Tie all bleeding points. 4. Remove foreign substances. 5. Suture all tendons and nerves. 6. Again apply iodine in and around wound. 7. Suture wound. 8. Apply dry sterile dressing.—*B. Lacerated wounds:* 1, 2, 3, 4, 5, same as in *A*. 6. Cut away all damaged tissue. 7. Again apply iodine. 8. Suture wound.—*C. Punctured wounds:* 1, 2, same as in *A*. 3. Enlarge opening for drainage. 4. Insert rubber drain. 5. Alcohol dressing. 6. Tetanus antitoxin.—*D. Gunshot or bullet wounds:* 1, 2, same as in *A*. 3. If much bleeding, enlarge opening and tie vessels. 4. If nerve injured, suture nerve. 5. Close wound. 6. Alcohol dressing. 7. Tetanus antitoxin. *Hoag.* 307

Book Reviews

A HANDBOOK OF PSYCHOLOGY AND MENTAL DISEASE. By C. B. Burr, M.D., Medical Director of Oak Grove Hospital (Flint, Mich.) for Mental and Nervous Diseases; Formerly Medical Superintendent of the Eastern Michigan Asylum; Member of the American Medico- Psychological Association, etc. Fourth Edition, Revised and Enlarged. Pages 235, with Illustrations. Philadelphia: F. A. Davis Company, 1914. Cloth, $1.50, net.

This book is intended both as a ready reference work for the practitioner, a concise textbook on psychiatry for the medical students, and for use in training schools for attendants and nurses in asylums. That its fourth edition is now appearing is evidence that it has proven useful. The book is divided into five parts: Part I is on psychology in general, including a discussion of the processes of thinking, the localization of function in the brain, feeling and emotion, volition, and abnormal mental manifestations. Part II is a brief section on symbolism in sanity and insanity, word association and obsession. Part III occupies about one-half the book and takes up the various recognized mental disorders, including sections on diagnosis and treatment. Part IV is a discussion of the management of cases of insanity from the medical standpoint, and is sufficiently circumstantial to be of marked practical value. In Part V is considered the management of cases of insanity from the nursing standpoint. Part II is new in this edition. Part IV has been amplified and improved. Studies of certain paranoid and hysterical states, based on Freud's researches, have been introduced and a more detailed description of symptoms and symptom groups given. On the whole, the work may be considered a good, concise, simply worded, and practical exposition of modern psychiatric practice.

Infant Feeding. By Clifford G. Grulee, A.M., M.D., Assistant Professor of Pediatrics at Rush Medical College; Chief of the Pediatric Staff, Cook County Hospital. Second Edition, Thoroughly Revised. Octavo of 314 Pages, Illustrated. Philadelphia and London: W. B. Saunders Company, 1914. Cloth, $3.00, net.

Since the first edition of this book appeared two years ago, no new scientific facts have come to light which would revolutionize our ideas on the subject of infant feeding, although there has been a gradual accumulation of useful or potentially significant data. These the author has embodied in the new edition, without disturbing greatly the original text. Among the new material introduced are recent X-ray observations relating to the physiology of the infantile gastrointestinal tract, nitrogen metabolism in early infancy, the value of dextrin in infant foods, calcium metabolism in infants, the constituents of colostrum, the composition of kefir, etc. As before, the work takes into account all recent scientific laboratory work; and the therapeutic recommendations, as well as the advice concerning infant feeding, are based on reliable clinical researches reported from various countries, together with the author's personal experience. While the discussions on pathogenesis are, perhaps, unnecessarily lengthy and abstruse from the standpoint of the general practitioner, the practical aspects of the subject including diagnosis and treatment are given due consideration and with less emphasis on ultra-scientific procedures such as the exact percentage and caloric methods of feeding, the measures recommended being, therefore, not over-difficult of application. The Czerny-Finkelstein-Keller classification of the alimentary disturbances of infancy is adhered to. The book can, as before, be recommended without reserve.

Taschenbuch der Magen- und Darm-krankheiten. Von Dr. Walter Wolff, Oberarzt der inneren Abteilung am Augusta-Hospital, Berlin. Pp. 163, with 13 Text Illustrations and 1 Colored Plate. Berlin and Vienna: Urban & Schwarzenberg. New York: Rebman Company.

This little work, introduced by Ewald, aims to present in a concise form the various diagnostic methods and therapeutic procedures employed in the Augusta Hospital of Berlin. All the methods described are considered by the author readily available to the general practitioner and amply deserving of his attention. The difficulties of the more essential procedures in modern laboratory diagnostic technique are, in general, overestimated by the rank and file practitioner, and it is for the use of the latter that the author's simple and readily understood little volume has been written. All the more common affections of the stomach, intestine, and esophagus are considered. Some short sections on the examination of the liver and pancreas and their functions have also been introduced for purposes of differential diagnosis. The colored plate contains two unusually good microscopic views of the stomach contents, which will permit of ready recognition of the various bacterial and other cells met under normal or abnormal conditions in this situation.

The General Field

Conducted by A. G. CRANDALL

Where the Cruelty Laws Should be Invoked

Because of the various exigencies of life's battle, it seems to have become necessary for a considerable number of men and women to secure their livelihood by posing as models for American art.

Now this is quite a prosperous country taking one year with another, and there are a good many of the sons and daughters of well-to-do families who, looking with disdain upon vulgar trade, feel the throb of the divine spark of genius and decide to make their names go down through the ages with Michael Angelo, Leonardo Da Vinci and Charles D. Gibson.

Equipped with a letter of introduction from the local photographer the budding genius is quite prone to dally a few months, at least, in the Bohemian atmosphere of Manhattan, before establishing himself or herself for "serious work" in the Quartier Latin of Paris, Having abundant means at their disposal they establish the temporary studio, and then call for a satisfactory model. The real ingenue female model being scarce and the sophisticated one being inclined to be sarcastic, after a time the genius aforesaid resolves to paint something serious, instead of merely ornamental, and hires a male model.

Now the serious business begins. The model, suitably adorned with artificial whiskers and resplendent robes, begins his arduous labors. Imagine to yourself the normal man posing for hours for some talented Miss of Oshkosh, who was a perfect prodigy at 6 years in drawing pictures of pigs. This is when the model who, after numerous sittings, inspects the result upon the canvass, feels the iron enter into his soul.

Victor Hugo has described as no one else has, the possible humiliations of mankind, but he was fortunately deprived of a knowledge of some of the cruelties of 1914.

* * *

The "Efficiency" Fakir

A writer on business methods for a weekly journal of large circulation, devotes much costly space to picturing out a hypothetical situation, where at the dances and other functions, the town boys would so bedazzle the farmers' daughters, that they would promptly ignore their rural escorts, as long as the town youth was in evidence. The writer procedes to tell how he so impressed the substantial business men of the town with the bad business effects of these social customs, that they put an end to the raids, with great resulting benefits to local trade.

The public appetite is beginning to pall on these highly theoretical fables, which don't even have the merit of slang. Slurring the farmer is supposed to have been tabooed editorially about fifteen years ago. This writer seems to be reflecting on the farmers' daughter, as it is a pretty cheap kind of a girl who will not at least play fair with her escort. Such contributions are about as reliable in their

diagnosis of social conditions as they are helpful from the business standpoint.

Physicians have themselves suffered much from the intrusion of dreamers and theorists, who in the seclusion of their cheap lodging houses, evolve brilliant conceptions of how the business end of the doctor's professional routine should be conducted. The hypothetical figures conspicuously in all these concoctions.

* * *

Widening the Breach

Those sensitive souls who constantly bemoan the legislative cruelties which have been practiced upon the poor railroads should take heart. Only a hint from that scintillating genius of finance, Louis Brandeis, was necessary, and a group of Eastern railroads, some of which, even in hard times pay large dividends on their capital stock, have arranged to advance their passenger rates.

All the railroads ask for is to be let alone and they will do the rest; and we know from past experience what that is. Numerous other enterprises would greatly enjoy being left alone, but the public interest will not permit it. Neither will the public interest allow railroads to follow their natural wishes. The ability to pile up a large surplus, besides paying big dividends, is but to invite raids by a certain eminently respectable class of financiers. Had the New Haven road been compelled to deal fairly with the public and been content to make fair earnings on its capital stock, a large number of small investors would now be assured of getting some return on those stock certificates which they painstakingly accumulated as a certain barrier against need.

The raising of the passenger fares in the congested Eastern States is wholly without justification, and will arouse public resentment, a very unfortunate kind of asset, of which the railroads by this time should possess some working knowledge.

* * *

Made in America

Now is the time when the magic of the European label is losing its hypnotic influence and American manufacturers are beginning to find an efficient substitute for those imported from abroad.

A man had a prescription containing ichthyol. He mentioned to the prescription clerk the name of the principal ingredient. "I hope it don't call for much," the clerk remarked.

Now if ichthyol fails to be obtainable, what next? There is the good old reliable St. Jacob's oil, of generations ago, then made in America and which probably is yet, and supposed to contain genuine goose grease, calculated when suitably applied to penetrate and soothe the aggrieved tissues, from infancy to old age. Why not help the goose industry and soothe the muscle strain occasioned by the "goose step."

Of course there will be no lack in Paris millinery and feminine costumes. Every general store seems to have received a ship load of these goods about thirty minutes before the war broke out. But the men will have to content themselves with labels chiefly, whether the goods they order are dry or "wet."

* * *

Sauer Kraut

This is the season when every prudent Pennsylvania family with a

truck patch busies itself in laying away a goodly store of sauer kraut.

There are numerous inhabitants of this broad land that seem to exhibit a snobbish attitude toward sauer kraut, and broadly hint that all persons cannot digest this delicacy, and that the law should require that it be cooked out of doors to prevent possible asphyxiation. This is a vile slander. Now that meat is reported at $1.00 a pound in certain European cities, and about half that in some American cities, every doctor should revise his diet list, and include therein sauer kraut.

The well known author, Dr. Arnold Lorand, tells in one of his books how sauer kraut should be prepared, and also describes its physiological action. When properly made into sauer kraut the sugar contained in the cabbage changes to lactic acid, thus producing the desired disinfecting influence in the intestines. Thus the succulent cabbage assumes its most benign characteristics only in the form of sauer kraut.

A practical knowledge of cookery is an asset of considerable importance to physicians and it is evident that they ought to be thoroughly up to date on sauer kraut.

Dr. Lorand says that sauer kraut is more digestible when warmed over a day or two after it is cooked .

* * *

A Question Hard to Settle

A well known popular magazine has been conducting a discussion of the liquor traffic. Many very ingenuous arguments have been put forth on both sides.

Examples are often given by communities supposed to be dominated by strict prohibition laws, in which the blind tigers and speak-easies are numerous. Such evidence of course tends to prove that no law adverse to public sentiment can be enforced.

The supposed local option law, while regarded by many as a distinct step down from prohibition, nevertheless provides in its operation perhaps the strongest possible argument in favor of prohibition. A small town or city in local option territory in which the vote alternates from year to year, for saloons and against saloons, furnishes a comparison of the economic results of these changes which is not lost upon surrounding communities. That the introduction of saloons in a town or city previously without saloons, brings demoralization and business decline is usually so readily apparent, as to convince practically all reasonably sane voters.

That the practical control of the liquor traffic is the great economic question in this country today cannot be questioned.

* * *

Autocracy

Since the recent unpleasantness abroad the term autocracy, heretofore used chiefly by high brows, has become very common. Most any newsboy or bootblack can now explain the meaning of the word autocracy.

We felicitate ourselves that we are not subject to autocracy, and it is a great consolation—in theory. Yet there are a few little items of daily experience which somehow, under the analysis, seem to suggest this state of affairs.

An autocrat is a person who exercises an unquestioned authority. Such being the case, what about the political boss, whose orders are

accepted with a knowledge that to rebel would mean to lose all chance of preferment, and be cast into the outer political darkness.

Then there are various coal, food and oil barons; has anything tangible come out of opposition to their demands?

And there is another form of autocracy which prevails in this land of the so-called liberty, which calls forth jeers of derision from other countries. The American husband is notoriously henpecked.

Thus, it can be seen by only a few minutes reflection, that the American male citizen, now pushing out his chest and boasting of his freedom, gets his full share of bossing.

* * *

One Barbarous Phase of the War

If the current newspaper reports that severely wounded soldiers are allowed to lie without medical attention, day after day on the disputed territory between the two lines of entrenchments is true, it constitutes one excellent reason for a general protest from all neutral countries.

This is a reversion to the barbarism of the Middle Ages. In the more humane periods between mediæval times and the present collapse of civilization, consideration of humanity have permitted the suspension of hostilities temporarily until the severely wounded could be removed from the area of conflict.

While the sentimentalism of the American people may be regarded with contemptuous indifference by some at least of the combatants, and while considerations of national policy suggest a strictly neutral attitude in this country, there has been no hesitation on this side of the Atlantic in extending aid of the most practical nature to the Belgians. And the most ordinary motives of humanity should be sufficient to cause a mighty protest to go up from this country if, as reported, the severely wounded are allowed to lie day after day without attention until they die of hunger and thirst.

* * *

Very Poor Guides

A weather-wise person reports that we are going to have a very mild winter, because the squirrels instead of laboriously gathering together large stores of nuts, are giving themselves up to riotous living, making no provision for a cold season.

We are inclined to doubt whether to attribute too much wisdom to the squirrels. Our observation leads us to believe that the squirrels should never be taken too seriously. Even if a squirrel happens to lay up a supply of nuts in a hollow tree, the chances are that before the winter is fully over, some woodsman will come around and cut down the tree for firewood. Besides that there is the execellent chance that if the squirrel lays up nuts, some recent arrival from a foreign shore with a gun, will take away from him all necessity for the stores he has so laboriously laid by.

We doubt if the squirrels should be taken as a guide in weather prognostications. It is far better to stick to the old reliable goose-bone. The goose is a wise bird making the best of his environment at all times. With the goose there is something to build on.

Treatment and Prophylaxis of Lobar Pneumonia

Recovery from pneumonia depends chiefly upon the formation of antibodies destructive to the pneumococci and capable of neutralizing their toxins.

Antipneumococcic Serum Polyvalent Mulford is the blood serum of horses immunized against different strains of pneumococci that produce corresponding antibodies and is, therefore, polyvalent. **Used in the early stages of pneumonia** and in sufficient doses, the serum affords valuable aid on account of these specific antibodies.

Dosage and Administration.—The minimum therapeutic dose, according to Cole,* must be at least 100 c c. repeated at intervals of four to six hours in order to secure sufficient concentration of antibodies in the blood to overcome the infection. Since quick response is desired the intravenous use of the serum is preferred.

Antipneumococcic Serum Mulford (polyvalent) is furnished in 20 c.c. aseptic glass syringes and in 50 c.c. ampuls with sterile rubber tube and special needle for intravenous injection.

Bleeding immunized horse in operating room. Care is taken to insure asepsis.

Bacterin and Serobacterin Treatment

The **value of bacterin treatment** in pneumonia is recognized. Like the serum, the bacterin should be polyvalent, and administered at the earliest possible moment. It is frequently employed as an adjunct to serum treatment, stimulating the production of greater amounts of antibodies by the patient.

Time is a vital factor in the treatment of pneumonia. For this reason the advisability of the early use of **Pneumo-Serobacterin Mulford** should be carefully considered; its action is prompt and larger doses may be given at short intervals, securing quicker immunity.

Prophylactic Immunization Against Pneumonia

A series of "mass" experiments in preventive immunization against pneumonia were recently carried out in South Africa by Sir Almoth E. Wright, in conjunction with Morgan, Colebrook and Dodgson, upon a large number of native miners having very low resistance against the pneumococcus.

Summarizing their report, the London Lancet says: "It seems difficult to resist the conclusion that the pneumococcus vaccines employed by these observers lessened the incidence and mortality of pneumonia and other conditions produced by the pneumococcus, and among large collections of natives who were highly susceptible to its activity and under conditions favorable to the spread of infection."

The work of Wright and his collaborators verifies in a conclusive manner the usefulness of prophylactic immunization against pneumonia.

Pneumo-Serobacterin Mulford is supplied in packages of four graduated syringes, A, B, C, D strength, and in syringes D strength separately.

*Rufus Cole, M.D., New York, 1913. Jour. A. M. A., lxi. No. 9, p. 663.

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SEXUAL NEUROSES.

Whilst it is true that in many instances a definitely existing lesion somewhere along the genito-urinary tract is the underlying cause of that distressing condition popularly described as sexual neurasthenia, yet in certain cases it is impossible of detection, or if detected its effects are too firmly fixed to make an immediately favorable response to the local treatment instituted. Wherefore the need for a soothing agent such as Bromidia (Battle) becomes necessary. Bromidia (Battle) is of the greatest service. It soothes the sexual irritability and enables the patient to rest and sleep well.

THE TUBERCULOUS INVALID.

The pricking of the Friedmann bubble but served to still further confirm and accentuate the vital importance of the well-defined methods of treatment for tuberculosis that have given such encouraging results, *i.e.*, fresh air, sunshine, rest, nutritive reinforcement and judicious medication. A proper combination of these four remedial factors is practically certain to place the incipient tuberculosis invalid upon the road to recovery, if the patient is intelligently handled and the treatment persisted in. While it is, of course, acknowledged that the first three non-medicinal agents referred to constitute the vital elements of the upbuilding régime, considerable aid is afforded by judicious medication. Hematinic reinforcement should certainly not be neglected, in view of the secondary anemia which is almost always apparent. Among the agents which have produced the best results in the revitalization of the blood, Pepto-Mangan (Gude) is most generally eligible and acceptable. As it is thoroughly palatable, neutral in reaction, free from irritant properties and devoid of constipating effect, the digestion of the patient is not disturbed, while the appetite and general vital tone improve more rapidly and satisfactorily than when hygienic and nutritive measures are depended upon exclusively.

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JUSTUS H. COOLEY, M.D.

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States Civil Service Commission, at Washington, D. C., for Forms 304 and 2095, incidentally stating the purpose for which these blanks are desired.

HUMAN HEALTH AND THE FOOT- AND MOUTH- DISEASE.

The Danger of Contaminated Milk Spreading the Disease Overcome by Quarantine and Pasteurization.

Washington, D. C., Nov. 14.—The anxiety that has been expressed in several quarters in regard to the effect upon human health of the present outbreak of the foot- and mouth- disease is regarded by Government authorities as somewhat exaggerated. The most common fear is that the milk supply might become contaminated, but in view of the precautions that the local authorities in the infected areas are very generally taking, there is comparatively little danger of this. Milk from infected farms is not permitted to be shipped at all. The only danger is, therefore, that before the disease has manifested itself some infected milk might reach the market. For this reason, experts in the U. S. Department of Agriculture recommend pasteurization. As a matter of fact, however, pasteurization is recommended by the Department, anyway, for all milk that is not very high grade, and from tuberculin-tested cows.

It has been demonstrated by experiments which have been made in Denmark and Germany that pasteurization will serve as a safeguard against contagion from the foot- and mouth- disease just as readily as it does against typhoid fever, but in any event, it must be thoroughly done—the milk must be heated to 145° F. and held at this temperature for 30 minutes.

In this country the foot- and mouth- disease has been so rare that there are few recorded cases of its transmission to human beings. In 1902 a few cases were reported in New England, and in 1908 in a few instances eruptions were found in the mouths of children, which were believed to have been caused by contaminated milk. In both of these outbreaks, the sale of milk was stopped as soon as the disease was found among

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the cattle. As long, therefore, as the disease can be confined by rigid quarantine to certain specified areas, the danger from this source is very small. Should the pestilence spread all over this country and become as general as it has been at various times in large areas in Europe, the problem would become more serious. Under any circumstances, however, pasteurization would be an efficient remedy. When pasteurization is not possible, and where there is any reason to suspect that the disease may exist, the precaution of boiling milk might be advisable. Simple directions for pasteurizing milk at home, however, are contained in Circular 127, which will be sent free on application to the U. S. Department of Agriculture.

Cows affected with the malignant form of the disease lose practically all of their milk. In mild cases, however, the decrease may be from one-third to one-half of the usual yield. The appearance of the milk also changes. It becomes thinner, bluish, and poor in fat. When the udder is affected, the milk frequently contains coagulated fibrin and blood, so that a considerable sediment forms, while the cream is thin and of a dirty color. These changes, however, occur only when the disease is in an advanced stage, and as a matter of fact, the disease is not permitted to pass into an advanced stage, as any stricken animal is at once slaughtered.

Men who come in contact with diseased animals may also become infected. In adult human beings the contagion causes such symptoms as sore mouths, painful swallowing, fever, and occasional eruptions on the hands, finger-tips, etc. While causing considerable discomfort, however, the disease is rarely serious. Where it is very prevalent among animals, some authorities believe that it is fairly general among human beings, but that the disturbances it causes are usually so slight that they are not brought to the attention of the family physician. There is, however, a very good reason for everyone giving the diseased animals as wide a berth as possible, namely, that otherwise they may easily carry the disease to perfectly healthy herds. Federal in-

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spectors engaged in the work of eradicating the pestilence are thoroughly equipped with rubber coats, hats, boots, and gloves, which may be completely disinfected; and others who lack this equipment are strongly urged not to allow their curiosity to induce them to become a menace to their own and their neighbors' property.

The disease, in short, is dangerous because of the loss that it occasions to property, and not because of its effects upon the health of mankind. At present all infected herds are being slaughtered as soon as they are discovered, the carcasses buried, and the premises thoroughly disinfected. Until all danger of infection has been removed

THE HABITUE IS OFTEN IMMUNE to the restraints of home and the family doctor. This should always suggest the Sanitarium.

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(*Continued from page 38.*)

While the open-air life is now recognized as benefiting girls and boys to an equal extent, the incidental effects of sunburn, insect bites, noxious weeds, etc., from the feminine standpoint sometimes persist undesirably. It is then that **DISEASES OF THE SKIN**, by **John V. Shoemaker, M.D., LL.D.**, will be found serviceable to the family physician, covering as it does in almost encyclopedic form practically every topic naturally to be expected in a work of this branch. The price of the book of over 1000 royal octavo pages, profusely illustrated and bound in cloth, is $6.00. Another book by **Dr. Shoemaker** which is useful in the above connection is **HEALTH AND BEAUTY**, 475 royal octavo pages, price in cloth of which is $3.00, net. It takes up the care of the skin and complexion, incidentally containing a large number of cosmetic prescriptions.

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INDEX TO ADVERTISEMENTS

BOOKS AND PERIODICALS

Auto-Intoxication in Diseases (Bouchard) 34
Books for All Oculists 32
Diseases of the Ear, Nose and Throat (Phillips) .. 39
Diseases of Infancy and Childhood (Fischer) 21
Face and Form Reading (Stanton) 43
Genitourinary Diseases and Syphilis (Morton) 41
Health and Longevity Through Rational Diet (Lorand) 42
Health and Medical Inspection of School Children (Cornell) 38
Infantile Paralysis (Frauenthal) 24
Modern Diagnosis and Treatment of Diseases of Children (Sheffield) 40
Pocket Medical Formulary (Fitch) 44
Studies of the Human Form (Shufeldt) 31
Studies in the Psychology of Sex (Ellis) 46
The Narcotic Drug Diseases and Allied Ailments 12

FOODS

Fellows' Syr. Hypophos. Co. 4

MISCELLANEOUS

A. A. Marks 28
For the Afflicted Physicians of Belgium 20
Hotel Powhatan 27
Marvel Co. 5
Miss Kite's Special Gymnasium 36
Publishers' Announcement 3
Royal Typewriter Company 26
The Oliver Typewriter Co. 13
The Weis Manufacturing Co. 22

PHARMACEUTICAL PREPARATIONS

Anasarcin Chemical Co. 47
Anheuser-Busch 11
Antiphlogistine, Denver Chemical Mfg. Co. 15
Armour & Co. ..... 4th page cover
Battle & Co. 25
Bovinine 6
Bristol-Myers Co. 25, 27
Cystogen Chemical Co. 2
E. Fougera & Co. ..... 4th page cover
George P. Pilling & Son Company 12, 23
G. W. Carnrick Co. 2
H. K. Mulford Co. 29
Kress & Owen Company 9
Listerine 28
M. J. Breitenbach Company 16
Martin H. Smith Company 10, 17
Od Chem. Company 14
Packer's Tar Soap 30
Passiflora 18
Peacock Chemical Co. 19
Purdue Frederick Co. 3
Sultan Drug Co. 19
The Etna Chemical Co. 21
The Norwich Pharmacal Co. 17
The Tilden Company 45
The Vapo-Cresolene Co. 8

SANITARIUMS AND RESORTS

Burn-Brae 36
Charles B. Towns Hospital 47
Dr. Barnes's Sanitarium 36
Dr. Givens's Sanitarium 36
Dr. McMichael's Sanatorium 37
Easton Sanitarium 35
Plainfield Sanitarium 34
Riverlawn 35
Riverview School 35
The Bushhill Sanatorium 33
The Richard Gundry Home 37
The Well-Ville Sanitarium 33

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